Medical Times
and LONG ISLAND MEDICAL JOURNAL
Consolidated.

THE JOURNAL OF THE AMERICAN MEDICAL PROFESSION

Published by THE MEDICAL TIMES COMPANY at 95 Nassau Street

59 Years of Faithful Service

Vol. LIX, No. 7 | NEW YORK | Twenty-Five Cents a Copy Two Dollars a Year

Medical Library

In This Issue

JULY, 1931

Hay Fever & Poison Ivy Treatment

THE POLLENS FROM DWARF AND GIANT RAGWEEDS are principally responsible for attacks of Fall or Autumnal hay fever. **National Ragweed Antigen** (Fall Hay Fever Antigen) is prepared from the pollens of giant and dwarf ragweed and is accurately standardized in protein nitrogen units.

V 209, Ragweed Antigen, (twenty-four doses) enable sixteen immunizing doses of the antigen to be given before usual symptoms of hay fever occur and afford eight extra doses, if needed, one dose to be given each week during the period when patients usually suffer exacerbation of the hay fever syndrome. Twenty-four dose set, $7.50. Sixteen dose set, $6.50.

RHUS TOX AND RHUS VENENATA ANTIGENS contain the active immunizing, or specific protective antigens, obtained from poison ivy and poison oak and are specific for ivy and oak poison. Four ampoule package — complete treatment—$3.50.

Ragweed and Poison Ivy Antigens retain their potency for two or more years, so you may safely order and be ready to render "first aid treatment."

THE PREVENTION OF HAY FEVER AND THE CURE OF POISON IVY DERMATITIS may be accomplished by the use of the selected antigens.

COMPLETE LITERATURE ON REQUEST

THE NATIONAL DRUG COMPANY

PHILADELPHIA

U.S.A.

MEDICAL TIMES AND LONG ISLAND MEDICAL JOURNAL Consolidated. Established 1872 and published monthly at New York by Medical Times Company, Inc., 95 Nassau St., New York, N. Y. Entered January 15th, 1931, as second class matter, Post Office at New York, N. Y. Act of Congress of March 3rd, 1879. Subscription price, $2.00 a year, 25 cents a copy. Vol. LIX, No. 7.

Medical Times
AND LONG ISLAND MEDICAL JOURNAL

Consolidated

THE JOURNAL OF THE AMERICAN MEDICAL PROFESSION

A Monthly Record of Medicine, Surgery and the Collateral Sciences

Copyright, 1931, by the Medical Times Co. Reproduction wholly or in part, only by permission.

Vol. LIX, No. 7 **NEW YORK, JULY, 1931** **Twenty-Five Cents a Copy Two Dollars a Year**

Board of Contributing Editors

WM. G. ANDERSON, M.Sc., M.D., DR.P.H...New Haven, Conn.
GABRIEL BIDOU, M.D.....Paris, France
P. BROOKE BLAND, M.D.....Philadelphia
JOHN W. BOWLER, A.M., M.D. .....Hanover, N. H.
CHARLES R. BROOKE, M.D. .....Newark, N. J.
WALTER CLARKE, M.A., M.B., L.R.C.P. (Edin.) ....New York
HENRY CLARKE COE, M.D., F.A.C.S. .....New York
EDWARD E. CORNWALL, M.D., F.A.C.P. .....Brooklyn, N. Y.
CHARLES J. DRUECK, M.D. .....Chicago, Ill.
KENNON DUNHAM, M.D. .....Cincinnati, Ohio
T. GERALD GARRY, M.D., M.CH., M.A.O. ....Montecatini, Italy
ALFRED GORDON, M.D. .....Philadelphia, Pa.
HAROLD HAYS, A.M., M.D., F.A.C.S. .....New York
AIMÉ PAUL HEINECK, M.D. .....Chicago, Ill.
WALTER BAER WEIDLER, M.D. .....New York
WALTER J. HIGHMAN, M.D. .....New York
VINCENT P. MAZZOLA, M.D. .....Brooklyn, N. Y.
HAROLD R. MERWARTH .....Brooklyn, N. Y.
ROBERT T. MORRIS, A.M., M.D., F.A.C.S. .....New York
HENRY H. MORTON, M.D., F.A.C.S. .....Brooklyn, N. Y.
D. G. MACLEOD MUNRO, M.D., M.R.C.P. (Edin.)..London, Eng.
VICTOR C. PEDERSEN, M.D., F.A.C.S.....New York
JOHN O. POLAK, M.Sc., M.D., F.A.C.S. .....Brooklyn, N. Y.
JOSEPH RIVIÈRE, M.D., ScD. .....Paris, France
DUNBAR ROY, M.D. .....Atlanta, Ga.
JOHN P. SPRAGUE, M.D. .....Chicago, Ill.
OLIVER L. STRINGFIELD, B.S., M.D. .....Stamford, Conn.
GEORGE H. TUTTLE, M.D. .....South Acton, Mass.
NATHAN B. VAN ETTEN, M.D. .....New York

Schizophrenia (Dementia Praecox)

The Diagnosis and Management of Incipient Cases

JOHN F. W. MEAGHER, M.D., F.A.C.P.,

NEUROLOGIST, ST. MARY'S HOSPITAL, BROOKLYN; MARY IMMACULATE HOSPITAL, JAMAICA; CONSULTING PSYCHIATRIST, KINGS PARK STATE HOSPITAL, ETC.

Brooklyn, N. Y.

THE importance of an early appreciation of schizophrenia will be readily understood when we consider a few of the following facts. About thirty or forty thousand new cases occur in the United States every year. As most of these disorders run a long course, these patients naturally constitute a large part of our hospital population. In fact one-sixth of all hospital beds in this country are for schizophrenic patients. The three most common mental disorders are schizophrenia, oligophrenia, and alcoholism.

The onset is so insidious that many cases are not recognized early. They may begin with hysteric, neurasthenic, hypochondriacal, manic, confusional, or paranoid pictures. Again they may at first show only irritability. Others are treated in the early stages for all sorts of somatic complaints of vegetative origin (especially gastro-intestinal, pelvic, and the eyes), by different specialists who fail to recognize the serious underlying psychic disorder. One must study the whole life history and how the individual meets his problems. The wishes of these patients can be easily studied in their phantasies. Like hieroglyphics the language of schizophrenics can be understood if one tries to learn it.

The term "dementia praecox", first used by Morel in 1860, was given its present conception by Kraepelin. The old term "dementia praecox" is faulty; first because all patients do not dement, and secondly because all symptoms do not appear precociously, i.e., at puberty or soon after. In fact the disorder can come on in the senium. Nowadays most writers use preferably the term "schizophrenia", first proposed by Bleuler, and regard it as being quite synonymous with dementia praecox. As the disorder is not unitary, but constitutes a group, we speak of the schizophrenias. The term "schizophrenia" signifies a splitting of the personality.

Technically, schizophrenia is a psychosis in which the process represents a regression of the libido from environmental objects back to the narcissistic level of development. The result is that they exhibit infantile adjustments to the cultural, personal, and social aspects of life. The little adult interest they retain is unsuitable. It naturally follows that a patient fixed in narcissism cannot constructively use his energy for object-love.

As Schilder states, in this disorder the personality and the environment approach each other. The resulting indefiniteness is the basis for depersonalization, and also for hallucinations (projection mechanism). And the libido becomes more and more directed inward toward the self. This means that the regression is away from a highly developed ego and ego-ideal to a more primitive ego and ego-ideal. The result is an increase of projections. The two main reasons for their withdrawal from reality are the lack of interest, and the habit of mistakenly referring factors in the environment to themselves. The loss of interest is often cumulative. Narcissistic regression may be shown by the hallucinations and the distorted primitive identifications. In the normal adult numerous pleasant identifications will prevent conflicts, and will also heighten self-consciousness and self-satisfaction.

There are certain personality types who are more prone to develop schizophrenia—usually called schizoid types. They are individuals who are sensitive and seclusive, and so in poor rapport with their environment. They may apparently be bright and are often very ethical. Introspection, egoism and a feeling of inferiority is common with them. As children they show poor emotional reactions, and are quite rigid in their manner and address. There is a marked disproportion between what they think and what they feel called upon to say. Some writers claim that anal sadism may in part account for the schizoid picture. Oral sadism is essentially primitive. Their various traits and trends point to various sub-groups, —backward, precocious, neurotic, asocial, juvenile.

Early in the schizophrenic type of reaction we first notice personality changes. At first there may be only a lack of continuity and interest in their work, but later on they neglect even simple duties. These changes appear long before the development of overt symptoms. The onset of the latter is less commonly acute; they may take as long as a year or more to become prominent. Many of them can hide their mental trouble for a long while, and stress only their physical complaints. These patients may accept the early personality changes, yet later in the course of the disorder may have no insight into the significance of the overt symptoms.

An assumed indifference, i. e., hiding the real state of one's feelings, may cover an underlying hatred, sadism or fear (as of being found out). Habitual indifference to social needs may lead to delinquency or insanity. Some so-called "forgotten" disagreeable incidents (really only repressed) may later return to consciousness with disagreeable results.

Etiology

Up to the present there is no agreement among psychiatrists as to the real cause or causes of schizophrenia. The generalization that every psychosis results from an external event and the inner constellation, and that the latter may be affected by an indifferent factor acting as a rationalization, does not explain the basic cause of schizophrenia. It only indicates why the psychosis was precipitated at that time.

Let us see what two authorities working along somewhat different lines have to say in regard to the etiology. Kretschimer (*Zeitschrift für d. ges. Neurol u. Psychiat.* Vol. 121, 1929) tells us that we must remember that schizophrenia has heredity as one of its principal causes. (Insanity, alcoholism, and psychosexual maldevelopment are common in the ancestors.) The disorder is often accompanied by severe bodily changes; and in bad cases there may be permanent mental defects. He then goes on to say that for these reasons we canot ignore the constitutional factor. He naturally then stresses the complicated psychic reactive formations resting on what he regards as organic foundations.

Schilder (Introduction to a Psychoanalytic Psychiatry) says that the following findings show that schizophrenia is in part a physically conditioned disorder: the type of body conformation, Abderhalden reaction, sex and other glandular changes. This physical disorder affects and alters the psychic systems. He says that schizophrenia will not ensue unless there are also present fixation elements. Because of privations or increased demands made by himself or others, the libido is dammed up, and finally breaks through at fixation points which may be hard to determine and are only partly narcissistic. The fixation points (object or aim) may be constitutionally or experientially developed—e.g., anal-sadistic phase from early experiences. Later particular sensory zones requiring neutralizing stimuli play a part in the picture.

And he further states that a schizoid psychopath will not develop a true schizophrenia unless the endocrine glands are also affected. He says that though the disposition to schizophrenia is extra-psychic, the origin being outside the brain, we recognize the significance of experiential factors in the genesis of the disorder. But the latter are not the chief cause. He thinks that the onset of schizophrenia takes place in the same way that a toxaemia does. Toxins may affect the gonads first. He says that drugs like alcohol and cocaine may strengthen the homosexual component of the libido. And he does not think that all this is against the libido theory of schizophrenia.

In a psychosis where there have been frustations by the super-ego or society, the ego is overcome by the id, and turns away from reality. The id is the instinctive driving force; the ego does the steering, to adapt the former's energies to the environment.

Many years ago Kraepelin thought that schizophrenia was of toxic origin, possibly the involvement being in the gonads. (The disorder is especially common during adolescence, and at the menopause.)

Jung saw a more functional origin, and blamed a toxaemia chiefly for the non-recovery. Other investigators have thought that a mild toxaemia might cause a symptomatic psychosis; and a severe one, a schizophrenia. The claim that mental causes operate early and organic causes later is to date only a speculation.

Probably neither those who hold to a purely constitutional basis, nor those who allege only an ontogenetic libido development are correct. There is much research study to be done in this field yet.

Certainly we have no grounds at present for saying that any one endocrine gland is invariably the cause of this disorder. And so far endocrine diagnosis is mostly speculative and uncertain. And endocrine therapeutic application has been mostly unsatisfactory. True, in many of these patients, degeneration and aplasia is found in the gonads. Of the other glands the pituitary (most frequently), thyroid and adrenals may be affected. Many schizophrenics show a metabolic reduction rate of 10% or more.

As for the accessory causes, those chiefly stressed are psychogenic—e.g., a schizoid personality, faulty family attitudes, undue repression, psychosexual maldevelopment, emotional irritations, absence of love which satisfies the ego, wounded narcissism, etc. The

most common states which culture represses are autoeroticism, homosexuality, incest, hatred and fear.

It is a well-recognized fact that abnormal parents ruled by feelings of inferiority, cynicism and hate can and do conditionally ruin a child's life. This is easy to understand when we remember that many of these patients are unduly reserved, inadequate socially, and have limited affective capacity. What little interest they show is morbidly fixed to the family (especially the mother) and not utilized socially; or else their energy is directed to unsuitable channels. Stimulating, normal love of family, with sympathetic understanding, favors mental health in children. Whereas, not only cold, harsh parental discipline, but also a maudlin mollycoddling are bad for mental health.

Disease or a habitually discouraging environment may cause depression and loss of initiative. Later on there may be dissociation of the affect from the ego-ideal; this dissociated repressed affect may gain control of the personality. A combination of fatigue, absence of worth-while affection, with a series of disturbing incidents, may readily repress the social ego. But over-work in the absence of stress, strain and conflict is not ordinarily a sufficient cause to produce schizophrenia.

The sex problem plays an important role in schizophrenia. Bad family training may be the cause of morbid ideas about sex. Undue and foolish warnings against the opposite sex, especially in the pre-genital period, are bad; and they favor psychosexual maldevelopment. Children from such a family often show a strange attitude toward the opposite sex, and exhibit profound dissatisfaction in their erotic life. Their libido may remain anchored to autoeroticism or homosexuality. When they get older they are not apt to fall in love, regarding love-making as beneath them. They love only themselves or their families. Because of their sensitive and ethical make-ups, they may react very badly to sex conflicts.

Emotional shocks, especially if these cause a wounding of their pride, at the time of puberty, marriage, etc., may liberate narcissism or homosexuality. If their weak heterosexuality is offended, they may regress to earlier love objects and aims. Their losing interest in reality only makes matters worse. Even in marriage any sex relations they indulge in are genital only, for affectively they do not really love their object nor accept their responsibilities as a normal adult should. For a while they may try to displace their sex energy into intellectual or other channels. This fails in such instances when it is an inefficient compensatory, and not a genuine, reaction.

Taking into consideration the alleged etiological factors one cannot always ascribe the sex attitudes entirely to repression, for possibly a constitutional affective inferiority may play a part. And one often notices that the symptoms may first become evident after a marriage, for which the patient was unsuited, or toward the consummation of which he manifested fear or indifference. The marriage merely precipitated the symptoms. Frigid schizophrenic women often show morbid irritability, hatred, or indifference toward their children. The men of this class may show little concern in the training or careers of their offspring.

Those patients who early indulge in much aimless struggling may blame all their troubles on sex, especially on masturbation. So some of them have the foolish idea that masturbation and insanity mean nearly the same thing. When they give up this habit, they may not be able to sublimate their sex energy into business, art, science, etc. A psychosis may result, where cravings are socially taboo, and yet intolerable. The psychosis is then a compromise, i. e., a flight from an unbearable situation. In milder cases unsuccessful compromises cause doubts.

Symptoms

A description of symptoms is not nearly as valuable as understanding their dynamic origins. I will refer here chiefly to the early fundamental symptoms (affect difficulties, displaced interest, misinterpretations), rather than to the accessory or secondary symptoms. The latter are mostly not diagnostic, but are found in various other psychoses. You may find an individual symptom even in normal people, but of course, not continuously.

The onset is more often with a feeling of inadequacy or perplexity, or a mild depression, than with excitement. Often, however, the onset is not at all characteristic, and may be with fear, anxiety, or obsessional phenomena. It is often more insidious in women.

We often get a history that these patients are losing interest in school or in work. Their small circle of acquaintances is usually children not of their own age, and it is gradually narrowed. In the beginning they are more disturbed by environmental factors than by their own conflicts and they over-compensate for their own inferiorities and incongruities. The repressed affect, resulting from inhibitory impulses from other trends, may cause an inner turmoil, though they may be outwardly calm.

Their spontaneous reactions are few, and they seem to have little desire for freedom. They begin to show unreal reactions in the situations in which they find themselves and they gradually lose their ability to react normally to complex social conditions. Their timidity, lack of energy and loss of initiative increase. They become habitual day dreamers; their phantasies having a decided sexual coloring. Their phantasy life (autism) increases as they withdraw more and more from reality. Later with the marked regression of the libido, there develops a dissociation of the personality. Dissociations may cause somnambulism, twilight states and a dual personality. Later on their delusions and hallucinations absorb all of their emotional interest, and their reactions become more infantile and asocial.

It is important to stress further the affects, thought, insight, and conduct in schizophrenia. These individuals do not seem to be happy, and become more unsociable. If they speak it is without depth of feeling; or with peevishness. They lack a sense of humor. Their self absorption is prominent and they do not appear really bored. Feelings which regulate their feelings to others (shame, disgust, moral and ethical senses, sense of guilt, pity, etc.) suffer early in the disorder; and the patient's reactions follow those of the autoerotic period. When they develop delusions we notice disharmonies between them and the affects—the latter being inadequate or even reversed. Confusion may result from affective conflict; the nature of the latter being shown by the patient's acts. The affective deterioration increases if the patient's disorder runs a chronic course.

The emotions (affects) are products of unconscious mental activity. They manifest themselves subjectively as feeling states and objectively in secretory and visceral changes and by changes in behavior. It is the feeling which accompanies the bodily changes after the reaction to some stimulus which constitutes the emotion. The emotions may become tied up in the symptoms. In dissociated states of schizophrenia, affects, motives, and reactions are out of harmony.

Thought in both primitive man and in schizophrenia is archaic, i. e., symbolized, distorted, and condensed. That is why we say that in schizophrenia the process of

thinking is more important than the content of thought. The repressed ideas of which the patient is ashamed are often negatively expressed in the form of delusions and hallucinations.

As just stated, thinking in the schizophrenic is archaic, i.e., like that of primitive man. In these patients, feeling, perception, and the concrete dominate—while reason, differentiation, and abstract thinking are but little in evidence. Many of them do little spontaneous talking. Three-quarters of these patients, even in youth, show autistic thinking. Correct speech usually indicates an adult ego-ideal. The schizophrenic does not understand his own symbolic language, but a student can tell from his symbolic phantasies whether his fixations are oral, anal, urethral, or in reference to the birth trauma, etc. The schizophrenic often freely expresses his secrets in the form of easily understood symbols or neologisms. This is unlike the neurotic who guards his secrets carefully. The ideas of reference are forerunners of their hallucinations. Thoughts of suicide and even of homicide are not uncommon. Some schizophrenics may no longer express their delusions and for a while only irritability and perplexity may be noted.

Magical ideas, which are common in many schizophrenics, dominate reality by way of identification. The magical phase of a psychosis is typical of morbid narcissism. As the ego produces results through wishes, actions become unnecessary to these individuals. However, part of the dominating ego-ideal may remain. "Magical influence" often signifies sexual influence. In the narcissistic magical sphere, phantasies of destroying the world are common. The self and the environment become approximated. The schizophrenic in his phantasies may even incorporate the world within himself, so that ultimately only his phantasies, and no world, remain. What the patient cannot perceive—even his own body—he denies (destroys).

Lack of insight favors morbid compensations. And with other things added, it helps to make one lean toward the diagnosis of a psychosis. In early schizophrenia there is insight, and the patient realizes to a certain degree that his delusions, which are the result of the projection mechanism, are unreal. He fights these delusions; and he also employs various rationalizations as excuses for his odd reactions. When regression is marked and prolonged, as seen in hospital cases, they no longer have any insight into their real condition.

The appearance and conduct of these patients in the early stages may be so near normal as to allow the early symptoms to escape the notice of the family. They rarely develop normal adult behavior, however. Later on they become clumsy and constrained; or are odd, silly and automatic in their reactions. Mannerisms are common. There is no parallel between their speech and conduct. For example a schizophrenic may talk incessantly and yet lie quite still in bed, which is so unlike an excited manic patient. He shows very few genuine productions in speech or actions. Stuporous schizophrenics may show defensive antagonisms against the environment, or else automatic obedience. The queer and often absurd conduct of the schizophrenic is usually not to be accounted for by any acute emotional disturbance, nor by confusion. His history shows early abnormalities in the development of the instincts and feelings. He often reacts compulsively to his unconscious trends, and for any antisocial or abnormal behavior he usually shows no real remorse.

Simple types of schizophrenia show a gradual mental deterioration, with an attitude of indifference toward their social responsibilities. A tendency to destructiveness is common in hebephrenia. Bleuler does not regard the sub-group of hebephrenia (puberty) as at all necessary now, as the syndrome may be found in the other three forms—simple, catatonic, paranoid. Most catatonic psychopaths, whether excited or stuporous, have an unconscious desire to be attacked. Paranoid types have as roots of their psychoses an eccentric attitude toward ambition, love and suspicion. The better class of paranoid individuals show greater preservation of the affects and volition than do other schizophrenics; their disorder being more evident in the intellectual sphere. They may remain in statu quo for some years. Many of them in order to cover their own deficiencies compensate by boasting, and they try to convey their importance—this being an inner need. They are unable to smile spontaneously, are inaccessible, and full of misinterpretations, and they stress their social rather than their sexual difficulties. The regression in paranoia is to homosexuality and narcissism. An unsuccessful attempt to reach a heterosexual level may cause a paranoid reaction. In some patients who have partly deteriorated, they become fixed at the homosexual level, in the attempt at mental restitution. This arrests a real cure. Some paranoid schizophrenics (and especially the submissive types) may go no further than to keep up an incessant struggle against delusional references to their repressed homosexuality. The persecutor is usually of the same sex, but not always.. These people sense the unfriendly unconscious of some other people with whom they come in contact. Querulousness is a characteristic symptom. An added socio-economic difficulty may also break his weak heterosexuality.

You cannot comprehend paranoid schizophrenics unless you understand their morbid psychosexual development, which is for the most part conditioned in their early home life. They cannot see the real facts in regard to their psychosis, i.e., not that they are hated, but that they hate themselves for their morbid cravings (projected). They are full of compensations, especially against the homesexual component of their make-up, and also in regard to their socio-economic difficulties. We see in their psychosis anal-sadistic hatred, a failure to normally resolve the oedipus situation, castration fears, etc. Stereotypies, catatonic phenomena, auditory and somatic hallucinations, which are all characteristic of schizophrenia, are found later in the disorder. Hallucinations of sight are not so common in chronic cases. Their fear of being spied upon is due to the fact that they have something to hide.

Most of the physical complaints of these patients are of psychic origin; others are conditioned by disturbed autonomic tonus or by endocrine imbalance. These symptoms are especially referable to the gastro-intestinal system, the pelvic organs and the eyes.

As I said previously, in many of these patients we find a diminished metabolic rate. In acute cases barium (or food residue) has been found in the colon for five days. The heart is not complained of as often by schizophrenics as by neurotics. Tics are not uncommon in paranoid schizophrenics. Head feelings—of strangeness, tensions, cloudiness, heaviness, numbness, "shocks," are common symptoms in the early stages of the disorder. These complaints are nearly all psychogenic and not toxic or organic. They may be due to their unresolved mental conflicts and doubts. Where patients say that their heads feel "thick" and bewildered, we usually find that this is due to the intense affective pressure which they are undergoing. Many chronic hypochrondriacs are really schizophrenics.

Catatonic rigidity is not necessarily organic. For the

strio-pallidal system, which is phylogenetically the older part of the brain, can also be influenced in its functions psychologically, e.g., by anxiety, fear, etc. In other cases, of course, the influence may be organic. Many schizophrenics ultimately die of tuberculosis. But the paranoid types, who show the most physical compensations (circulatory, endocrine), often die of cardio-vascular diseases.

Diagnosis

Before considering the differential diagnosis, I will briefly review the diagnostic criteria, especially in regard to recent cases. Needless to say hardly any one agrees with Stärcke that there is really only one psychosis, and hence that there is no need to differentiate the various psychoses. Latent schizophrenics are quite numerous and are found in every psychiatrist's office practice. Diagnosis in the very early stages can only be made by the life history, showing how the present reactions differ from the patient's former normal life. These incipient patients are the ones who are most amenable to psychotherapy. For unlike chronic hospital cases, they still have much insight, and are still in fair contact with the real social world. Individuals are quite often schizophrenic, who, just as they are gradually failing, want to be something out of the ordinary (great leaders, sociologists, intellectual giants, etc.), and yet who at the same time neglect their ordinary, everyday obligations. Their adaptations become odd, and their conduct unusual. They turn their energy in a rather juvenile way into art, music, poetry, etc. This is their way of avoiding reality, by turning it into symbols. If you study their spontaneous utterances and the relation of their statements to people or events, this may assist you in understanding their deeper conflicts. At first their conflicts are easier to understand, not being so highly symbolized as they are later on.

So we say that the early pathognomonic symptoms of schizophrenia are emotional and volitional. They are egocentric and lose interest early in social demands, and develop ideas of reference. For, being governed in great part by their unconscious, insignificant matters apparently hold their attention.

The lack of coördination between the intellect and the affect is a fundamental symptom, and helps to produce the loss of active attention and social interest. Blocking is very common, and is in part due to the exaggerated repression. This blocking is in part the basis for the so-called dementia. Weak, shallow, irrelevant associations are characteristic. The splitting of the psyche may be shown early by negativistic phenomena. In the early stages such intellectual capacities as passive attention, memory and orientation are quite good.

Disintegration of the personality will show in their behavior. They will not be courteous, grateful or appreciative. Now beginning to lack insight into their personal deficiencies, they feel that they are misunderstood and unfairly treated.

I will say a little more here about the "dementia" in schizophrenia. The so-called emotional deterioration in early cases is often more apparent than real, and is in regard chiefly to social interests, rather than to personal matters. Their energy is not lost, it is only withdrawn from suitable interests. Emotions fixed to an infantile level of development may indicate the degree of the deterioration. In such instances the emotional reactions are inappropriate for the patient's station and age, and he fails to express himself according to the adult standards of his environment. In addition to his apathy and emotional dullness a part of the "dementia" in schizophrenia is due to the fact that transference and the power of sublimation are greatly diminished. With this goes a marked sexual over-estimation. These individuals, so unlike hysterics, fail to overcome their infantile autoerotic activities. The schizophrenic has a poor capacity for sexual transference, i.e., for object-love. Hence when he breaks down, he readily reverts to autoerotism.

In differential diagnosis I will first consider schizoid psychopaths and neurotic patients. By a schizoid personality we mean one with a lack of uniformity of the affectivity, with the coexistence of contrasted strivings; one who is dull and yet sensitive, who exhibits some odd associations. But we regard the psychosis schizophrenia as being present if in addition an individual autistic, socially useless, and has catatonic symptoms, hallucinations and delusions. The term schizoid is used by some writers to indicate a latent schizophrenia. But a schizoid psychopath is not a schizophrenic as long as his peculiarities are within the limits as noted above. The autistic way of thinking is valuable in helping to differ the schizophrenic from the psychopath. And of course the schizophrenic shows conflicts, doubts, blocking, stubbornness, queer and often grotesque conduct and delusions, whereas the motive for the psychopath's conduct is pure self-gratification.

Many latent schizophrenics live for years in the world, and never have to be hospitalized. Not all schizoid individuals become insane, particularly if no great responsibility is demanded of them. This is also true of the vast majority of individuals with a paranoid personality who also are fortunate enough not to develop a psychosis for similar reasons and who may even appear to be normal to the casual observer. But paranoid ideas, an occasional hallucination or strange conduct with the schizoid personality prove that these individuals are schizophrenics and not merely psychopaths. Of course there are some cases which are most difficult to differentiate in the early stages. And we must keep in mind the fact that a person with a schizoid personality is capable of developing other psychoses besides schizophrenia.

Schizophrenia may be confused with one of the neuroses, especially if the patient has hysterical or obsessive symptoms. In hysteria, which is a transference neurosis, the individual displays feeling, and may show affection for one individual or thing and great aversion for another. But in schizophrenia, which is a narcissistic neurosis, the individual is indifferent or hostile to nearly the whole environment. Hebephrenics are notoriously indifferent to everything, even to their disease. The neurotic also possesses great powers of sublimation which the schizophrenic lacks. And the neurotic is not demented, and does not present disturbed associations, auditory hallucinations, nor fixed delusions in a clear state, as the schizophrenic may. The neurotic's symbols (phobias, compulsions, conversions, etc.) are more complex than those of incipient schizophrenics. However, the schizophrenic whose troubles are nearer consciousness has better insight in the early stages, but not of course in the later stages. Also the schizophrenic is more seclusive, pedantic, ironical, negativistic and stubborn, impulsive, and is less affected by fear, effort, hunger, cold or pain; and he reacts badly to marriage; whereas the hysteric is more suppressive, coquettish, pliable, and is not so given to foolish compulsive acts, without apparent conscious reason.

In the early stages it may not be possible (until later in the course) to differentiate a depressed schizophrenic, a mild manic, or a neurasthenic. We must remember that amentia may occur independently; or

as a process in schizophrenia or manic-depressive psychosis.

The differentiation from manic-depressive psychosis is often very difficult. The depressed manic patient is quite annihilated by his troubles, whereas the schizophrenic is more apt to go through an aimless phantastic struggle. Schizoid types split easily (dissociations), while cycloid (manic) types are more apt to develop moodiness and affect disorders. Cases particularly hard to diagnose are those manics who show schizoid features in their personality make-up. They are the patients who appear to be schizophrenic during one psychotic upset, and manic in another. Manic delusions are often self-accusatory. Those of the praecox are more absurd, and more apt to be allopsychic. The schizophrenic may blame his trouble on masturbation, while the patient with an affect psychosis merely regards this as morally wrong, but not the real cause of his trouble. The thought of the schizophrenic is loose, and more complexly symbolized; and it lacks the pressure of activity of the manic patient. The schizophrenic's activities, unlike the manic's, are not directed to a definite goal. They are more absurd, stereotyped and unproductive. The manic patient shows flight and distractibility, while the patient with catatonic excitement is rigid and incoherent.

The patient with involution melancholia withdraws his libido first from the love object; next he loses interest in everything. But he is not indifferent, and complains a great deal about this loss of interest. And along with this depressive affect, the world to him becomes cold, joyless and loveless. Also in melancholia there is an exaggerated cathexis of the ego-ideal. But in schizophrenia, only certain very differentiated constructions of the ego-ideal are early impoverished. And the schizophrenic accepts his loss of interest with indifference—certainly he does later on. Introjection, which is the rule in melancholia, is also found in schizophrenia. I might note here that all authorities do not agree that melancholia is a narcissistic disorder.

Schizophrenia may occur not only in the involution period but also in the senium. The characteristic organic dementia of the senile psychoses is usually easy to distinguish from schizophrenic dementia.

The real paranoid individual is more logical and consistent, and shows a better demeanor and more normal affects, and in general a better preserved personality than does the paranoid schizophrenic individual. And the paraphrenic shows less tendency to deteriorate badly than do the other forms of schizophrenia. The paranoid individual dislikes those who probe into his difficulties, and likes those who flatter him. Paresis is differentiated by the presence of the organic syndrome and the physical signs. Alcoholic psychoses also have their own special characteristics. Though one must remember that many alcoholics and drug addicts are essentially latent schizophrenics. Deterioration is more marked in schizophrenics addicted to alcohol.

Patients suffering from epileptic dementia show a poor comprehension and a narrow ideational life. Epileptoid attacks may complicate schizophrenia. Twilight states in epilepsy and hysteria last only for hours (or days?); but in schizophrenia they may last for months. The deteriorated praecox is not fully demented, but only in regard to certain times and certain complexes and constellations. Some are regarded as good workers until they compulsively do something stupid.

A schizophrenic type of reaction may occur in organic brain disease. The diagnosis is made by exclusion. In organic dementia, along with the physical signs and the rather general mental deterioration, we see loss of memory for recent events and disorientation. Unlike the indifference noted in schizophrenia, patients with organic and epileptic dementia may take pleasure in their work and show appropriate feeling under different conditions.

Without a careful history, borderline cases of early schizophrenia and high grade defectiveness (moron) may be difficult to differentiate. A schizophrenia beginning very early in life, and leaving some residuals, may lead the physician to suspect a defectiveness from birth. But a schizophrenia beginning later in life and then deteriorating, at least shows some residuals of his former good mental capacity. Again a moron may have a superadded schizophrenia. In general, however, most psychotic upsets in defectives are mere episodes and not genuine attacks of manic-depressive psychosis or of schizophrenia. It has often been remarked that schizophrenics are usually more unapproachable than defectives. In fact a good rapport is more difficult to get with a schizophrenic than with any other psychotic possessing a clear sensorium.

Prognosis

We give a better prognosis today in schizophrenia than we did twenty years ago, particularly if the patients begin treatment early. We should not give a fatalistic prognosis because of hereditary or constitutional reasons only. Recuperation depends on the personality of the individual, the nature of the conflicts, and what the world has to offer him on rehabilitation. The prognosis in part also depends on the compensatory strivings, the extent of the eccentricities, the amount of repression, and the resistances which interfere with a good transference. We do know that the ego must eventually hold to reality in order to preserve normality. During the illness we must find out if emotional outlets are towards or away from reality. If the latter, find out if possible the stage of fixation. We judge a person's mentality by his affects and by what he says and does. For these result from his mental (and bodily) activities. The previous life history and the present condition are our sole criteria for diagnosing sanity or insanity.

As a patient improves his insight should become better. This enables him gradually to face his problems in a more normal way, as he advances more and more toward adult social ego-ideals. And in the opposite direction, insurmountable resistances against a good social readjustment interfere with a good outlook.

Where a patient recovers without insight, the rule is that he is apt to break down again. The chronic patient, of course, has little or no insight. When a psychosis comes to a standstill, this usually means that some sort of an adjustment has been made possible at a lower level, i.e., to a state more or less without responsibility. Such individuals lack the normal responsibility in regard to the home, parenthood, friends, society, etc.

Where the etiological stress was great, and yet is possible to be removed, and if interest can be developed, the outlook in the individual case may be very good. However, where the cause was slight, the personality shallow, and the onset insidious, the prognosis must be guarded. Such an individual may

tend toward a chronic course. Or "recovery" may be at a lower social level, with residual mental defects. Defects in chronic cases are especially in the affects and volitional fields. If delusions are present, they may tend to become more absurd. The age of the neurosis (onset and course) is more important than the age of the patient. While some writers regard schizophrenia beginning at puberty with some concern, others regard as quite favorable those young schizophrenics with a good personality who have undergone severe stresses before the onset. The prognosis is poorer in an individual who previously had an "abnormal" character.

It is always a good sign where the reality motive gains the upper hand over the phantasy motive. And it is always a good prognostic sign if during the course of the illness the patient shows an increasing and spontaneous social interest. It is likewise a good sign where the patient doubts the validity of his delusions. A real improvement, of course, must include more than a subsidence of the secondary symptoms (delusions, hallucinations, etc.) And as a rule in those cases where a toxaemia was the apparent precipitating cause, and the psychic phenomena predominated over the physical symptoms, the outlook is better. In other instances a toxaemia, though not causing the upset, may favor its continuance.

Certain combinations of symptoms often point to chronicity. For example, if in a schizoid type you notice habitual autism, queer instinctive complaints, delusions of bodily influence, multiple delusions and hallucinations, continuous indifference, inconsistencies and silly giggling—all occurring with a clear sensorium—the prognosis is not good.

Where a patient has no desire to assume a mature attitude toward his difficulties and toward his illness, and also has no craving for social esteem—so common in many infantile destructive hebephrenics—the outlook for a recovery is not good. A lack of decency, with otherwise orderly conduct, and a clear sensorium is a bad sign. If you cannot change the underlying morbid affect, ideas and attitudes, the condition will probably run a chronic course.

Ordinarily habitual indifference is even worse than hate prognostically. Hatred towards those to whom one is socially bound favors deterioration. In general, persecutory delusions occurring in the paranoid type are with hatred; in the hebephrenic type, without hatred. If the catatonic has persecutory delusions, they are not only without hatred, but also are vague, and are not fixed on any individual—which is one reason why the prognosis is better in catatonic individuals. Also paranoid and catatonic individuals have more mature social wishes to become normal than have hebephrenic individuals. A revulsion of the libido from great affection to extreme hatred may be irrevocable. And you can hardly make over a bad affective attitude between two people which has lasted for years. Chronic patients with fixed delusions, no insight and hatred are usually incurable. It is rare to see a recession of a chronic severe dementia.

The outlook for a cure in simple schizophrenia with chronic hypochondria (which is usually without affect) is poor. It is also poor in patients with a long-continued fixation to earlier levels of development, who in the bargain have no confidence and give no cooperation. Patients fixed on their regressive infantilisms cannot respond in a normal adult way to treatment. With a loss of the sense of potency (personal, social, etc.), the natural tendency is towards inertia.

Usually the best prognosis is in catatonia, i.e., if there are in addition no malignant reactions. In some acute catatonic excitements, however, where the affective and associative disturbances are severe, the prognosis must be guarded. The average catatonic usually recovers by repression, and so he fails to assume part of his personality within his conscious self.

The phrenic patient who is fixed at an infantile level, with predominant excretory and anal-erotic trends, often has his personality destroyed. The catatonic patient (stuporous or excited) neutralizes his cravings by giving way to them. If not absolutely fixed to them he may recover. The paranoid schizophrenic usually keeps on fighting his cravings, and hence his psychosis keeps up. However, some paranoid individuals try to get well by building a phantastic wall about themselves. And in some instances, though not normal, they get along fairly well; and their psychosis may appear for awhile to have come to a standstill.

Recurrent, transitory paranoid reactions are to be differentiated from progressive paranoid personality and psychotic changes. They may be conditioned physically or psychically. Transitory paranoid reactions may be due to the individual's endocrine habitus, without special points of fixation to determine a definite psychosis. A psychosis may be precipitated by a toxaemia, and later the individual may return to his normal self. We see a somewhat similar difference between the schizoid psychopath and the sufferer from schizophrenia, except that physical signs are more evident in schizophrenics than in paranoiacs.

Treatment

Unfortunately too many of these patients are not brought for treatment early enough, so that when we first see them their libido is quite bound up in their symptoms. We should see them at the first sign of any odd conduct, or unexplained loss of interest, with indifference. For at this time their ordinary social cravings are not yet lost in their autism. If one recognizes early that he is dealing with a schizophrenic patient, and treats him accordingly, one may get surprisingly good results. But in treating schizophrenics, you have always to keep in mind their autism, sensitiveness, mental isolation and their present incapacity for active mental life. It is important to recognize the fact that many of the male patients have a hatred father-complex. For if you are too severe they will identify you with the father, and this will increase their resistances.

Many patients fail to persist in the treatment, being disappointed in not getting results at once. They do not realize that treatment takes a long time, in order to solve all of the conflicts, to develop better insight, to break down resistances, and to release the libido, which is bound to their narcissism, for the more useful purposes of normal social life. And then they must learn a constructive thême of living which will take them away from their egocentricity and phantasy way of living. Some of these patients show psychometrically a fair amount of intelligence, but do not seem to have the ability properly to employ it. Many of them have had poor psychic and social training, and some are not in the best of physical health.

Not only the physician, but the family and friends, must try to exercise a sympathetic understanding of these patients. A good, emotionally stimulating friend and companion will help greatly to prevent

deterioration. But the physician must not only exercise sympathy and tact, but must also have an insight into the whole situation. A dominant and an aggressive attitude must never be shown toward them. Rather must we try to see the difficulty from their angle. Trying to force one's will on them, or scolding or arguing with them, only increases their resistances, which is just what we should not do.

The home life should present not only material attractiveness, but an atmosphere of mutual love, helpfulness and happiness, and, during the patient's illness, it must afford generous help. It is in the home where all the fundamental traits and tendencies in life are formed; where love is first experienced—or unfortunately in some instances not experienced—where good habits and self-sufficiency should be developed; and where a fine emotional attitude is first developed.

Too often this is not what we find. If the home is stupid and unattractive and the parents negligent of their responsibilities, and are cynical, cold, harsh or domineering, no wonder some of these individuals break down. It is not the function of parents to capitalize their children, but rather to take delight in making them happy, and in making fine young men and women out of them. Other members of the family must be advised regarding their duties as to how to assist the patient to get back his mental health. It is necessary to eliminate not only bad home conditions, but also irritating environmental or business conditions. As a rule it is easier to treat the environmental than the constitutional factors in the psychosis. Keep the patient from all stresses which favor disintegration. It does little good to discuss the patient's delusions with him. All of the factors involved in the psychosis have to be considered. If bad conditions in the home cannot be eliminated or avoided, the question will arise as to removing the patient from the home, in order to avoid a total failure. We must eventually get rid of the patient's conflicts. Hospitalization is only recommended when it offers the best hopes for a cure. It may be necessary when we get no familial cooperation; or worse still, nothing but added irritations. The family is usually in some way involved in most of these psychoses.

You have to get the patient into that environment wherein he has the power to adapt himself comfortably. One of his usual faults is that he has been neglecting the environment. He must be taught the limits of his adaptability, and so regulate his ambitions accordingly.

A general rule is never to do anything which will increase a patient's feeling of inferiority, or make him feel more insecure. Harshness, threats or punishment will do this and will also favor a sense of guilt in him, and possibly also initiate castration fears; or in other types, resentment. Every patient's narcissism demands some suitable personal and social gratification, and some social support.

As long as a patient shows no interest outside of himself, and while his capacity for adaptability is still scant, treatment will remain difficult. Indifference must be actively combatted, for it is destructive in its tendencies. If it is allowed to remain or to increase, and if with it the patient is permitted to grow careless in regard to himself and his responsibilities, the disorder is unwittingly being fostered. When the patient fails to cooperate, and if in addition his family offer little constructive help, you have a grave situation on your hands. For in order to reintegrate the dissociated with the normal psyche you need good, constant cooperation. Where a patient has no insight—e. g., in hypochondriacal types—psychotherapy does little in a curative way, although it may help to establish confidence. It is quite futile trying to explain causes and mechanisms to a deteriorated patient without any insight whatever.

It is particularly in these schizoid types where morbid psychosexual attitudes must not be allowed to develop. They should receive some constructive healthy instruction in life's problems. What to do should be taught, and not merely what not to do. For the parents merely to stigmatize sex to the child is hurtful. The child must be helped to understand his ethical and sex conflicts. Unfortunately many married schizophrenics only look on marriage as an indifferent duty. Always keep in mind that sublimation and not morbid repression is what we want to accomplish. Enlightenment prevents undue curiosity and undue repression. Do not always blame repression in the child on heredity. Repression in the parents may be the cause.

Recommending only sunshine, trips to the country, etc., without any psychotherapy, is rather foolish treatment in these conditions. And for those rather mild cases who go to a hospital, it might be said that too long a residence in a sanitarium may favor laziness, and a continuance of a phantasy existence.

As furnishing aids to a return to a normal social attitude and life, suitable work, amusement and play, out-of-door exercise and occupational therapy are all valuable. They also help to prevent deterioration and to rebuild the personality. The making of valuable new adjustments during convalescence is one of the objects of re-education.

As to the question of psychoanalysis being employed in patients suffering from schizophrenia, most authorities feel that the narcissistic neuroses (to which schizophrenia belongs) are difficult to analyze; certainly during the active phases of the disorder. This is chiefly because their narcissism interferes with a proper transference. And again analysis can only help in those patients who have some insight, and who will cooperate at least to a certain extent. Kretschmer agrees with Freud and others that analytic treatment is not valuable during the schizophrenic attacks. Hinsie thinks analysis is good in the early stages of suitably selected cases. Many schizophrenics object to analysis, and possibly when some resistances have been broken down and you are beginning to get at the significant facts, they may stop the treatment. These individuals prefer their phantasy life to facing reality.

It will be necessary to say only a few words about the drug therapy of this disorder. It is usually symptomatic, or directed toward concomitant disorders. Physical disorders (e.g., head complaints, "indigestion", etc.) of psychogenic origin, in individuals who are fixed in narcissism, are very resistant to drug treatment—in fact may not respond to it at all.

As for endocrine therapy, probably thyroid shows the best results, especially in coexisting hypothyroid conditions. Years ago Kraepelin tried out glandular therapy on an extensive basis and obtained scant results in schizophrenia. Some investigators thought that the best results were obtained in catatonic cases. In these patients we find a high incidence of thyroid deficiency. The poorest results from the use of endocrines are probably found in paranoid cases. In

(Concluded on page 255)

Colloid Goiter: Its Etiology and Treatment*

Comments Based Upon a Series of 1143 Cases

ISRAEL BRAM, M.D.,
Philadelphia.

Colloid goiter is a swelling of the thyroid gland resulting from distention of its acini with excessive accumulations of colloid substance. Colloid goiter is usually an expression of thyroid fatigue following persistent demands made by the body for more thyroid hormone.

While in so-called goiter districts colloid goiter may be very prevalent as a result of endemic causation, we are here concerned with the nonendemic or sporadic type of colloid goiter which may occur anywhere.

AGE LIMITATIONS

Colloid goiter has no age limitations although it is most common between the tenth and fifteenth years of life. Exceptional instances in children of 3 or 4 are seen, as well as cases in men and women even past middle age. In the child it appears that hereditary influences, a tendency toward precocious development, and dietary and hygienic errors are largely responsible. In the adult, colloid goiter may develop from the presence of focal infections and as a result of thyroid fatigue during pregnancy and following such general infections as influenza, typhoid fever and pneumonia. In the latter cases a considerable amount of hypertrophic pathology within the organ may be found. Probably 92 per cent of cases of colloid goiter are observed in girls during puberty and adolescence.

SEX INCIDENCE

Colloid goiter is relatively rare in the boy. In our series of 1143 cases, only 76 occurred in the male. The reason for this sex predilection is probably the greater complexity and sensitivity of the female endocrines to epochal changes.

Table 1.—*Age Incidence* in 1143 Cases of Colloid Goiter.*

Under 3 years	18 or	1.6 percent
3 to 5 years	37 or	3.3 percent
5 to 10 years	76 or	6.7 percent
10 to 12 years	214 or	18.7 percent
12 to 15 years	501 or	43.8 percent
15 to 18 years	215 or	18.8 percent
18 to 20 years	52 or	4.5 percent
Above 20 years	30 or	2.6 percent
Totals	1143 or	100.0 percent

*The ages herein stated indicate the age of the patients at the time they were examined.

Table 2.—*Sex Incidence in Colloid Goiter.*

Females	1067 or	93.4 percent
Males	76 or	6.6 percent
Totals	1143 or	100.0 percent

ETIOLOGY

Sporadic colloid goiter occurs as a result of inadequacy of thyroid function. In a certain percentage of growing youngsters the thyroid does not readily comply with the demands made upon it by the growth processes. In endeavoring to meet the needs the organ becomes enlarged. Still failing in physiological supply, the thyroid becomes more swollen from fatigue until it reaches conspicuous proportions. This is almost constantly associated with a lowered metabolic rate which may vary between minus 5 and minus 25.

Colloid goiter of pregnancy is due to inadequacy of thyroid secretion in meeting the demands of the woman and her unborn child. The basal metabolic rate in the latter months of pregnancy is about 25 points higher than in a nonpregnant individual, due to the presence of the fetus.

Fig. 1.—Moderate sized hypertrophic and colloid goiter in a girl at puberty. The second photograph indicates the result of 8 months of therapeusis, with disappearance of goiter.

Even colloid goiter resulting from focal or general infection is due to thyroid inadequacy. The immunizing function of the thyroid being under the circumstances inadequate, the gland becomes enlarged to meet the deficiency, but despite this it fails in its effort, becomes fatigued and continues structurally to enlarge.

Table 3.—*Probable Etiology of Colloid Goiter.*

Puberty and Adolescence	511 or	44.7 percent
Pregnancy	152 or	13.3 percent
Dietetic and Hygienic Errors	60 or	5.3 percent
Focal and General Infections	95 or	8.3 percent
Heredity	42 or	3.7 percent
Multiple Causation	132 or	11.5 percent
Undetermined Causation	151 or	13.2 percent
Totals	1143 or	100.0 percent

PHYSICAL SIGNS

A colloid goiter is evenly distributed throughout the thyroid. In size it may vary from twice to 10 or more times that of the normal thyroid gland and may even occasion pressure symptoms. But this circumstance is uncommon, unless iodine has been given, when the mass may become alarmingly aggravated. Ordinarily the goiter is moderately resistant to the touch and may even be quite soft. Such a thyroid may be compared with a loaded sponge. Imagine the

* From The Bram Goiter Institute, Upland, Pa.

normal thyroid gland as a small, dry, U-shaped sponge; imagine this sponge to be immersed in a bowl of fluid and distended in all its dimensions; this is a diagrammatic representation of what has happened to a thyroid which has become distended into a colloid goiter. It is therefore obvious that in

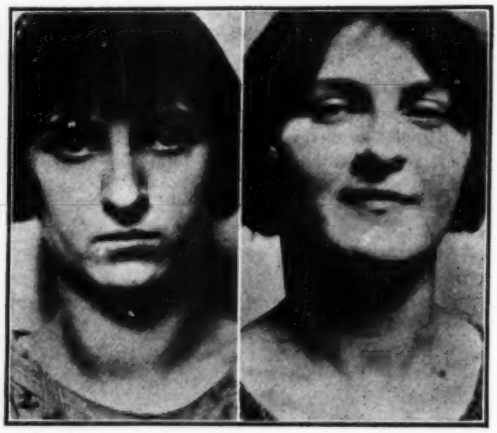


Fig. 2—The first photograph is that of a girl in adolescence presenting a colloid goiter in association with subnutrition. The second photograph is the same patient with a perfectly normal thyroid and a clearing up of the subnutrition—the result of 9 months of therapeusis.

contradistinction to such neoplastic enlargements as adenomata or cysts, the colloid goiter is nontumorous in nature.

If neglected, a colloid goiter may undergo such changes as cystic degeneration and adenomatous infiltration. Occasionally these changes are brought about by iodine administration. Indiscriminate iodine medication and self-drugging through patented "goiter cures" have led to many disappointments, quite a few unavoidable thyroidectomies, and even fatalities.

Table 4.—*Basal Metabolic Rates in Colloid Goiter.*

Plus 15 percent to plus 1 percent	... 29 or	2.5 percent
0 percent to minus 9 percent	... 174 or	15.2 percent
Minus 10 percent to minus 15 percent	... 317 or	27.8 percent
Minus 16 percent to minus 20 percent	... 402 or	35.2 percent
Minus 21 percent to minus 25 percent	... 166 or	14.5 percent
Minus 26 percent to minus 30 percent	... 29 or	2.5 percent
Minus 31 percent to minus 34 percent	... 26 or	2.3 percent
Totals	.....1143 or	100.0 percent

Diagnosis

The diagnosis of the usual case of colloid goiter of adolescence is not difficult. One must exclude geographical or endemic etiology. The important features are the age and sex of the patient and the physical signs over the thyroid. The absence of adenomatous or cystic nodules to preclude a neoplastic goiter is confirmed by physical examination and by the fact that these neoplastic entities rarely occur before the age of 18 or 20, and usually are the result of neglect of a colloid goiter. The absence of throbbing and bruit over the thyroid, as well as the absence of excitability, heart hurry, and a heightened metabolic rate help to rule out the hyperplastic thyroid swelling of exophthalmic goiter or Graves' disease.

When in the doctor's office, young girls with colloid goiter are apt to appear nervous, present a rapid heart, moist skin and tremor. Even the metabolic rate taken at this time may be misleading. One must not hastily conclude that the case before us is one of exophthalmic goiter. A better acquaintance with the patient and a general atmosphere of reassurance will soon disclose these symptoms to be of psychologic nature due to fear that an operation may be advised.

The matter of bodily weight in this relation is interesting. While in the presence of thyroid sluggishness it would be expected that the weight be excessive, this occurs in the minority of instances. We are just as likely to observe a normal weight in these youngsters, and not infrequently a state of undernourishment. Subnutrition and secondary anemia are commonly present in adolescence with colloid goiter. It is likely that dietetic and hygienic errors are here of etiological importance.

Treatment

Surgery. If the colloid goiter is of such dimensions as to occasion alarming pressure symptoms we are dealing with a surgical emergency. However, pressure symptoms are rare in colloid goiter, and when present can usually be attributed to iodine administration and relieved by withdrawal of iodine. If pressure results from substernal location of the mass and if the symptoms are not relieved by adequate medical attention within a reasonable time, this would constitute a surgical indication. But substernal colloid goiter in the adolescent is also rare.

Thyroidectomy in colloid goiter is generally contraindicated. We are dealing with an inadequate thyroid; we cannot possibly cure a functional inadequacy by cutting away most of the gland. The need is a correction of etiology.

Roentgen Ray Treatment. The same may be said of radiation. Since x-rays reduce glandular function, their use in the treatment of deficient function is contraindicated and opposed to the physiological indications.

Iodine Administration. While minute doses of iodine cautiously administered may serve to *prevent* endemic goiter, one must not confuse prevention with *cure*. To prevent something is to offset the occurence of a nonexistant event. Cure refers to a correction of an already existing event. Since iodine increases the colloid content of the thyroid, this drug

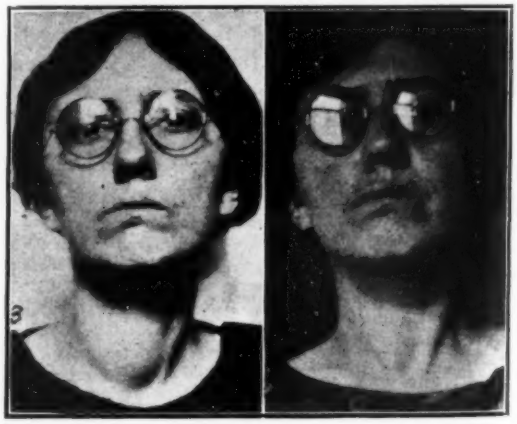


Fig. 3—Colloid goiter with subnutrition in an adult. The second photograph indicates the result of a year's therapeutic attention with clearing up of the goiter and of the subnutrition.

cannot be expected to cure an existing colloid goiter. Iodine usually aggravates the condition by increasing the size of the mass; the drug may also produce pressure symptoms and occasionally set up thyroid toxicity.

Thyroid Opotherapy. Since the etiology of colloid goiter is thyroid inadequacy, it is logical to conclude

that supplying the body with more thyroid substance may correct the cause and eliminate the goiter. Clinical observation proves this to be true. *The mainstay in treatment of colloid goiter is the administration of thyroid substance under careful guidance.* A few weeks after thyroid substance is taken a most satis-

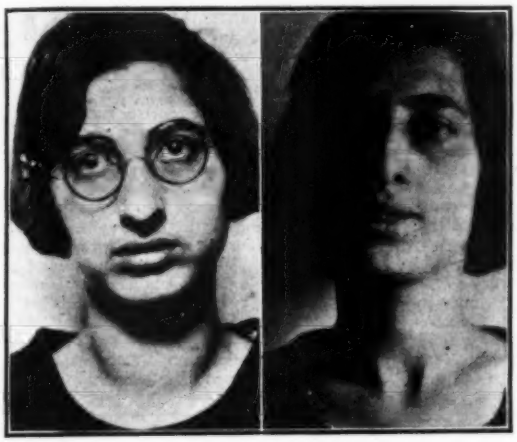


Fig. 4—Case of adolescent thyroid hypertrophy and colloid goiter of large dimensions. The second photograph is the same patient relieved of goiter as the result of 6 months of treatment.

factory change comes over the patient. The pasty complexion gives way to a healthy hue. The goiter becomes decidedly smaller. Overweight is reduced and subnutrition improved. The metabolic rate approaches the normal. The developmental processes progress more satisfactorily, as revealed by an improved sense of well being and physical and mental capacity, and the establishment of menstruation, if this be due. Continuation of this treatment for a sufficient time effects complete cure. The time required depends upon the duration of the goiter, the degree of susceptibility to thyroid substance, the experience of the attending physician and the degree of cooperation manifested by the patient. The thyroid, relieved of its strain, gradually unloads itself of its excess colloid and shrinks back to normal size.

Remarks on Thyroid Administration. To prescribe thyroid substance without qualification may lead to disappointment. We must specify whether powdered substance is desired or whether desiccated thyroid is wanted as the latter is 4 or 5 times more potent than the former. Also, the potency of the product of a given firm may differ from that of all the rest; indeed, we may find the product of a single firm varying in potency from time to time. Finally, a thyroid product may undergo deterioration and become inert or even harmful from decomposition because of its age, acquired either on the druggist's shelves or in the wholesaler's warehouse. Hence it is that when prescribing thyroid substance (and this applies to all endocrine products) these factors must be considered in safeguarding the patient's interests.

In some patients I find that halving the dosage of thyroid substance and combining it with a small dose of thyroxin yields better results than the giving of thyroid extract or thyroxin alone. For example, instead of prescribing desiccated thyroid substance gr. ii, once daily, I have seen more prompt results from gr. i in combination with thyroxin gr. 1/200 to gr. 1/100.

Individual response to thyroid substance can usually be checked up by basal metabolic determinations. These should be done at least once a month with due precautions to avoid error in technic. In this connection we must bear in mind that in some patients where the preliminary metabolic rate is low, possibly minus 30, attempts at increasing medication to bring the metabolic rate up to zero or above may result in thyroid intoxication from overdosage. In other words, it is necessary to study the individual as well as the disease to determine whether the patient before us is one in whom the conventional normal metabolism does not apply but is somewhere below zero. The reverse may also hold true; a patient may not experience the proper sense of well being unless the B. M. R. is at least plus 10 per cent. The dose of thyroid hormone required therefore depends upon individualization.

Other Elements in Treatment. While thyroid hormone is the mainstay in treatment, other elements must be considered with a view to eliminating multiple causation and expediting recovery. The diet should be characterized by a restriction of animal proteins to subnormal quantities of fowl, fish or lamb, the elimination of tea, coffee, condiments and the spices, and the taking of ample quantities of fruits, vegetables, cereals, and dairy products. The elimination of such discoverable infectious foci as may occur in teeth and tonsils, the correction of faulty hygienic conditions and the insistence upon proper relation between sleep, work, and play are important. Since the thyroid gland is intimately related with the sexual apparatus, sensible, simple advice should be given on this matter. Finally, the weight adjustment should be considered with respect to the metabolic rate and the growing needs of the individual. Although overweight requires correction, I should much prefer to see the patient weigh five pounds too much than five pounds too little.

Prognosis

All things equal, a colloid goiter of medium size and of two or three years' duration should disappear within 3 to 10 months of attention. In some patients

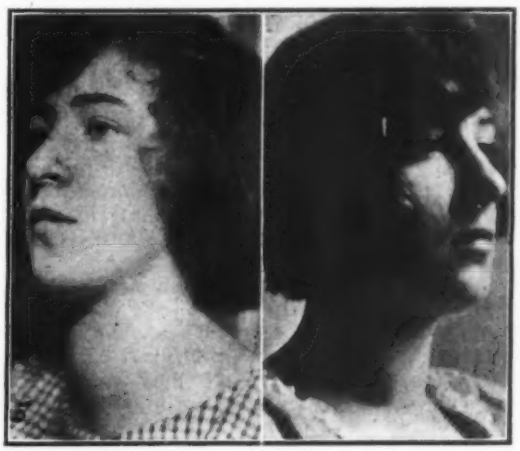


Fig. 5—Case of rather large colloid goiter in an adolescent girl. There were some pressure symptoms. The second photograph is the same girl entirely cleared up of the thyroid swelling as the result of 8 months of treatment.

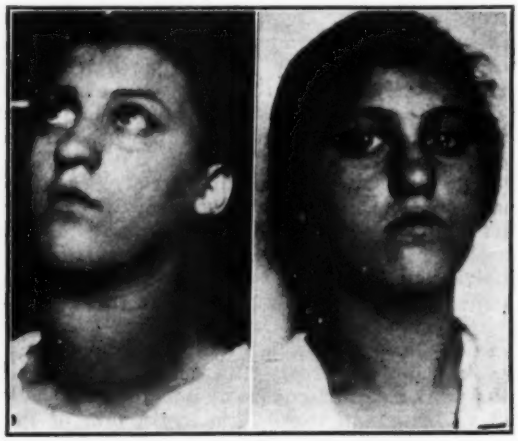
a brief course of thyroid treatment may be required some time after discharge from primary attention; this need is determined by a return of slight fullness of the thyroid and a reduced metabolic rate which respond readily to attention. Hence these subjects had best remain under the doctor's observation for a casual examination (2 or 3 times a year) during a period of 2 or 3 years after active treatment is ended,

or until past the turbulent period of adolescence.

SUMMARY AND CONCLUSIONS

1. The etiology, course, indications and contraindications in the treatment of colloid goiter are discussed, the comments being based upon observations in a series of 1143 cases.

2. The average case of colloid goiter is due to thyroid inadequacy and is an expression of functional fatigue of the organ.



Case 6—Case of marked hypertrophic and colloid goiter of 8 years duration in a girl of 15. Impending pressure symptoms were evident. The second photograph is that of the same patient after 7 months of treatment as herein indicated.

3. Probably 50 per cent of colloid goiters, especially in the adolescent, undergo spontaneous involution, the patient clearing up without treatment. In the balance, the goiter may persist and in later years become cystic, adenomatous, intrathoracic, toxic, and even carcinomatous. Hence a policy of indifference is taking a gambler's chance, jeopardizing the future welfare of the individual.

4. Unless stubborn pressure symptoms exist either from tremendous enlargement in its usual location or because of intrathoracic position, thyroidectomy in colloid goiter is distinctly contraindicated because (a) such a procedure intensifies the causative functional deficiency of the thyroid; (b) recurrence of colloid goiter is common after surgery; (c) satisfactory physical and mental growth of the individual after such thyroidectomy is hampered.

5. X-ray treatment is likewise contraindicated in colloid goiter since this mode of therapeusis also intensifies the causal thyroid inadequacy.

6. Iodine is also contraindicated in the treatment of colloid goiter since the principle of its physiological action depends upon an increase in the colloid content of the thyroid. As the result of iodine administration, a colloid goiter may become large enough to produce symptoms and may even undergo toxicity.

7. The indication in the treatment of colloid goiter is the correction of the thyroid inadequacy by the administration of thyroid hormone. Its administration must be under careful guidance and checked up by properly interpreted basal metabolic determinations. Such supplementary elements in treatment as the correction of infectious foci and errors in hygienic and dietetic habits and other phases of daily existence are important assets in the interest of prompt and permanent recovery.

8. Properly and promptly treated, i.e., before the eighteenth year of life, the prognosis in cases of colloid goiter is excellent, the majority of patients achieving recovery within several months of attention.

1633 Spruce Street.

The Jarotzky Diet in the Treatment of Round Ulcers

The Jarotzky dietary treatment of gastric ulcers differs considerably from the alkaline diet originated by Sippy and usually employed in this country. The Jarotzky diet depends essentially on a rather high fat diet and the avoidance of a mixed ingestion of fats and animal proteins. It is quite extensively and successfully used in Europe.

The basic principle upon which the entire rational diet in hypersecretion and peptic ulcers depends is the absolute avoidance of mixtures of fats and animal proteins in the diet (Jarotzky, *Acta. Med. Scand.*, No. 35, 1930). Investigations in Pawlow's School have shown that fats alone or mixed with carbohydrates cause a reduction in the secretion of gastric juices, opening of the pylorus and ejection of the duodenal contents into the stomach. With this there occurs a neutralization of the acid gastric contents. A mixture of fats and proteins acts in the contrary sense. Even the first small portion of this mixture, for instance milk, causes the pylorus to close and holds the food in the stomach for several hours. The fat contained in the mixture first inhibits the secretion of gastric juice but after several hours the soaps produced in the duodenum by the saponification of the fat cause by reflex action a plentiful secretion of gastric juices. Therefore, for patients suffering from hypersecretion all foods are contraindicated which represent a mixture of fats and proteins. If it is necessary to give these patients fats and proteins they must be administered separately. From this point of view the prescription of milk, cream, eggs, fat meat, should be avoided. If, for instance, such a patient is allowed meat he should not be given at the same time fat soups or purées. Food causing increased secretion of gastric juices such as bouillon, coffee, tea, spices, etc., must be avoided. During the acute periods, *i.e.*, immediately after a hemorrhage and in cases in which blood has been found in the stool, the patient should be given only raw egg whites and fresh unsalted butter. These two foods should be given separately, the raw egg white in the morning, the butter during the second part of the day.

The first day the patient receives one raw egg white without salt, unbeaten, which he swallows like an oyster. After three p.m. he may have twenty grams (three tablespoons) of the best quality fresh butter unsalted. The quantity of egg white is increased daily by one egg white and the butter daily by twenty grams, thus on the eighth day the patient receives the whites of eight eggs in the morning and 160 grams of butter in the afternoon. The patient receives no other food than the raw egg whites and butter, nothing to drink and no medication. He should be given no enemas, neither nutritive enemas nor enemas with physiologic solutions nor should hypodermoclysis with physiologic solutions be given. This diet should not last longer than eight to ten days.

At the end of this time or at the start of the treatment if there is no danger of hemorrhage or perforation the patient receives a butter vegetable diet. The food should be prepared without salt. Milk and bouillon are forbidden in all cases. Thin gruels or thick soups prepared with butter and made with oats, rice, manna, pearl barley, etc., can be given. Purées of whole-boiled vegetables such at potatoes, yellow turnips, cabbage are cooked with salt. For the sake of variation "cutlets" can be made of these purées and paste. Besides this the patient can have sweet mashed rice or manna grits, cooked in water with a little fresh fruit juice or sugar, than fruit purées. The patient can have butter either in his food or separately as much as he wants, usually up to 200 grams a day.

After a few weeks (three or more) of this diet, the patient can have for lunch a cutlet of chopped, strained meat, without fat, either beef, veal, or chicken. The meat should be soft, mixed with white bread and a little butter and baked or stewed. Sauces are forbidden. When such a meat dish is given at noon time the patient does not get any more soup. A little butter may be added to the vegetable and fruit purées to improve the taste. The daily diet is divided as follows: In the morning as soon as the patient gets up he receives a thin purée or a thick barley soup with fresh butter. At noon time soup made of strained barley or potatoes, then a vegetable purée or a grits purée, also a sweet purée of stewed fruits. If desired one purée may be given in the evening.—*Amer. Med.*, Feb., 1931.

Oxygen Inhalations in Pertussis

These inhalations afford considerable relief to a patient who has violent spasms of coughing. Each coughing attack is treated by a few inhalations of oxygen. Vaccine treatment has been generally disappointing.

Colpotomy

Vaginal Drainage of Pelvic Abscesses (Douglas's Abscess)

CHARLES J. DRUECK, M.D., F.A.C.S.
Chicago

THE recent works of Zondek, Knorr, Schmidt and others dealing with the diagnostic and therapeutic value of puncture of Douglas's pouch have renewed interest in this therapeutic procedure.

Intrapelvic suppuration in the female is most frequently encountered in:

a. The parametral connective tissue, and not bounded by a peritoneal wall.
b. Within the parametral subperitoneal connective tissue, occurring within the connective tissue plane, and backed or bounded by pelvic peritoneum, but below the pelvic floor.
c. Within the pelvis, in the vicinity of the vagina, bladder or rectum, but not involving the parametrium.
d. Within the layers of the broad ligament, intraligamentary.
e. Within the uterine wall.
f. Within the ovaries.
g. Within the Fallopian tubes. This is the most frequent source of intrapelvic abscess.
h. Within the walled-off part of the pelvic peritoneal cavity, usually in Douglas's recto-uterine pouch, within which infection and suppuration having their origin elsewhere (from a source within the abdomen) may become localized.

Certain precautions are always to be kept in mind during colpotomy:

a. The nature and site of the abscess must be well defined.
b. A prolapsed loop of intestine must not be wounded.
c. The free peritoneal cavity must not be entered.
d. The uterine vessels lying closely lateral to the uterus are to be avoided.
e. The ureters have been traumatized and are therefore to be thought of.

Exploration through Douglas's pouch is often essential for differential diagnosis and, likewise, vaginal drainage is a very definite surgical need and a satisfactory operation in selected cases, but owing to the many different causes, sources and sites of intrapelvic abscesses which may occur the indications for vaginal drainage of a pelvic abscess must be certain or the unsurgical procedure is done of cutting an opening into the posterior vaginal fornix, and then burrowing in the dark with an instrument or the finger, hoping to break through the walls which bar the pus from evacuation, and not break through walls which protect uninfected cavities or into uninvolved structures or organs.

The vaginal route is not a route of election in female children, in young unmarried, and nulliparous women, where it should not be employed because the vagina does not admit of enough dilatation to permit safe and adequate incision of the pus pocket. The prolonged contact of the cervix uteri with the infectious discharges escaping through the vaginal incision exposes the uterus and the adnexa to infection.

In the presence of a peritoneal inflammation and exudate the removal of the latter through a puncture of the retro-uterine pouch influences favorably the course of the disease; also in the presence of suppurative processes a removal of some of the pus has a beneficial influence on the course of the affection. The diagnostic value of the Douglas puncture is even more important than its therapeutic value, this being especially true for cases where a tubal pregnancy or a retro-uterine hematocele is suspected. An infection of the hematocele through the puncture of the Douglas pouch is not to be feared, if after a washing of the vagina the place where the puncture is to be made is painted with iodine. If the hematocele is already infected or if a development of peritonitis is feared, then the puncture must be followed by a posterior colpotomy in order to permit thorough drainage. The next most frequently observed condition for which the Douglas puncture is indicated is the Douglas abscess.

A combined recto-vaginal examination usually reveals some swelling of the recto-vaginal septum and at times a definite tumor can be palpated. In the presence of Douglas exudate, the recto-uterine excavation becomes more or less elevated, the elevation being uniform and smooth. The presence of nodules usually points to a gonorrheal pyosalpinx displaced into the pouch. The puncture is usually carried out in the middle of the space of Douglas and is as a rule a minor procedure. If the puncture is carried out laterally there is a danger of perforation of an intestinal loop which may be displaced there. Puncture of the parametrium and the laterally displaced organs is not as harmless as it is usually assumed.

TECHNIC

It can never be definitely determined in advance and sometimes not even afterward whether the abscess, even though well walled off, be intraperitoneal or extraperitoneal, and we must proceed as though the peritoneal cavity were likely to be invaded. However, there are so many adhesions and inflammatory changes as to make it impossible to recognize what part of the operation is extraperitoneal and what part is intraperitoneal. The exact location of the pus is often not easy to determine, and may not be essential to the proper treatment of the case. After the pus has been evacuated it is best not to risk the separation of adhesions in order to determine the exact organ in which it originated.

Whether or not exploratory puncture should be made to confirm the presence and location of the pelvic abscess is much discussed, the danger of wounding adjacent structures with the needle point, and also of diffusing cantagion thereby being serious problems. However, this procedure is advised by careful surgeons, condemned by others. If exploratory puncture is decided upon, then in proportion as fluctuation is felt, one may proceed with relative boldness, and where the physical signs of pus are absent one must progress with corresponding care. In mak-

ing this puncture a good guide is to keep as parallel as possible with the posterior wall of the uterus which has been drawn down by the vulsellum forceps, rather than to point toward the rectum. If pus is located by aspirating some into the barrel of the syringe the barrel is then detached, leaving the needle in situ, and the incision is made alongside of the needle. In this step also there is difference of opinion, some surgeons preferring to withdraw the needle entirely and to make an incision along independent lines, but guided largely by the preliminary exploration.

A posterior vaginal speculum is usually employed, with or without the aid of an anterior or lateral retractor. The posterior cervical lip is seized by a vulsellum forceps, and drawn downward and forward, and then the backward pressure of the posterior vaginal speculum will tend to open out the posterior vaginal fornix, besides bringing it nearer the vaginal outlet. Sometimes, in very evident and superficial cases, closed scissors are conducted up along the left index finger without the aid of speculum or retractor and transversely incise the pus sac protruding into the dome of the posterior fornix. In other cases the cervix is held by the vulsellum and the posterior vaginal wall is incised about three-quarters of an inch below the dome of the fornix. The dissection is then carried up closely behind the uterine wall rather than directing the instrument toward the rectum. Kelly advises introducing the left index finger into the posterior vaginal fornix and the left middle finger into the rectum, so that the progress of the scissors in the right hand will be guided by the finger in each of these structures, thereby lessening the danger of damaging the intestine. In operating upon an abscess situated well up in the pelvis it is to be remembered that a retroverted or retroflexed uterus will somewhat and maybe considerably bar the way to its incision and evacuation and correspondingly expose the rectum to the danger of being cut. After the scissors have ruptured the abscess the blades are separated to their full extent and withdrawn opened, thus further enlarging the wound. The index finger is now introduced into the abscess cavity and careful search is made, aided by a hand over the abdomen to press the parts downward, backward, upward and lateralward, so as to open into the one common exit all collections of pus which may be present and not otherwise in direct communication with the cavity at first opened.

When the abscess is situated high behind the uterus, the pelvic floor may be thick and the surgeon's left finger following closely behind, and in contact with the dissecting scissors, examines the space made by each cut of the instrument. This closely advancing finger presses the anterior rectal wall out of the way during the operation. The curve of the scissors conforms in a manner to the connective tissue plane just posterior to and parallel with the posterior wall of the uterus. The scissors first cut, are then opened, and the finger explores and advances. This series of acts is repeated for each step, thus verifying the progress and estimating the nature of the surroundings by means of the finger before making each step. The relatively firm posterior wall of the uterus is our guide. When proceeding in this manner all retractors are withdrawn from the vagina to allow more room, the uterus being drawn down and steadied by the vulsellum grasping the posterior cervical lip. The more accurately the dissection is made between the uterus and the abscess the greater the degree of safety and the closer the rectum is approached the greater the danger. It is well to remember that if the posterior uterine wall is too closely followed the dissection may become difficult or confused by inadvertently cutting into the uterine tissue.

The middle finger in the rectum during the operation guards against mistaking a scybalous mass in the rectum for the inflammatory mass, and against mistaking a gaseous distention of the rectum for a fluctuating pus cavity.

When evacuation has been completed and no reasonable doubt remains that all barriers have been broken down between the first incised and other possible localizations of pus, safeguarding, also as well as is possible, that no safety barriers have been broken down between infected and non-infected intraperitoneal structures, the question of drainage is considered. A loose gauze pack, or a retention catheter carried through the vagina to its outlet will suffice. When rubber tubes are used they should not go far into the pus cavity, as they are then less apt to come in contact with nearby coils of adherent intestine, which may form one of the boundaries of the pus cavity. The rubber tube usually needs anchoring to the vaginal wound.

In evaluating vaginal drainage it is well to remember that simple evacuation of the pus by way of the drainage does not relieve all the other conditions such as adherent tubes or ovaries and that these may be the cause of future trouble. Vaginal drainage in no way replaces the more radical intra-abdominal operations.

Vaginal drainage of even intra-abdominal abscesses has the advantages over abdominal operations that there is less mortality, the ovaries and tubes even though adherent and diseased are preserved, a function of considerable importance to young women though not so important in older, there is less danger of complications from adherent intestines, less suffering and easier convalescence, there is avoidance of possible post-operative hernia, and relief may be obtained with an intra-vaginal operation when the intra-abdominal operation might be contraindicated.

If, during the operation, or while attempting to open a secondary abscess, the free peritoneal cavity be entered, one should make the freeing and cleansing of the pus cavities as thorough as possible, then pack them loosely with gauze, bringing the end of the drain out of the vagina.

During the searching out of accessory pockets one must be especially careful not to open into a coil of intestine because such an accident certainly results in a fecal fistula and may cause a fatal peritonitis.

If the abscess is extraperitoneal, unilateral or bilateral in the areolar tissues of the broad ligament, such as may follow confinement, it may be several days before the abscess and its position can be demonstrated. As soon as it is located an incision is made through the vaginal wall in the dome of the lateral fornix and then the abscess is approached by blunt dissection through the areolar tissue, carefully watching for the ureters and large blood vessels which will be encountered here.

Post-Operative Drainage

All of these deep pelvic abscesses require post-operative drainage, usually for 10 to 14 days, but sometimes for 4 to 6 weeks, which may be accomplished by: A. Gauze wicks; B. Rubber tubes; C. Dilating the incision in the vaginal wall. No one method is satisfactory in all cases.

Some operators prefer rubber tube drains but there is danger of the sharp edge of the ordinary rubber tubing cutting into a coil of intestine. If a rubber drain is used the velvet-eyed end of a small rectal tube or a large self-retaining catheter should be used. The latter will remain in situ without an anchorage suture.

Many surgeons use gauze drains exclusively but they must but loosely fill the cavity so as to act as a wick and be brought out of the vagina. A firm pack of the pus sac will cork up the cavity.

If hemorrhage is troublesome upon completing the operation, a rubber drain made of a velvet-eyed end of a small rectal tube or a mushroom type of self-retaining catheter, similar to those used in the bladder, may be introduced into the cavity and a gauze pack snugly placed between the tube and the bleeding tissues; the gauze is packed in for temporary use only and should be removed when the bleeding stops.

If a gauze drain is used it must be removed every other day to permit irrigating the cavity with normal salt solution. If rubber drains are used irrigating may be performed through them. Should drainage be removed too early the vaginal wound may close prematurely and require secondary dilating.

Patients are allowed up and about their rooms when their temperature has been normal for three days.

The incision of the Douglas pouch may lead to the formation of fistulae, of the type of the pyosalpinx-pyoovarian-vaginal ventilation fistulae, which do not heal spontaneously and which can hardly be influenced to any extent by conservative measures. Also the typical (midline) Douglas's abscess incision may be followed by a pyoovarian vaginal fistula, which is not due to the incision per se, but is the result of erosion or infection of the corpus luteum verum or spurium from the abscess cavity or through a spontaneous perforation of the ovarian empyema into the latter. The therapy consists chiefly in a radical removal of the diseased adnexa in a septic unilateral affection, or, in the presence of suppuration of all the genitalia of the small pelvis as well, the entire uterus and adnexa, with extensive drainage of the wound region towards the vagina. The results of the operative treatment are excellent in spite of the severe condition of the patient.

Before leaving this subject it may be well to mention vaginal drainage of intraperitoneal infections met with in the course of laparotomies, because in these cases vaginal drainage may be used to supplement abdominal drainage or as a substitute for it.

If a vaginal drain is desired the patient is placed in the Trendelenburg position and, with the pelvis carefully walled off, an assistant wipes out the vagina and with a pair of long hemostats presses the posterior vaginal wall up into the pelvis until the elevation on the pelvic floor resembles the peak of a tent.

Cullen[1] emphasizes the necessity of introducing the forceps into the vagina under sight and not by the sense of touch. He relates two experiences in his own work, one where his assistant carried the forceps through the urethra and by pressure carried the bladder through the broad ligament and up behind the cervix; the other where the forceps was introduced into the rectum instead of into the vagina. In both cases the viscus was incised before the error was discovered. The incision was, however, quickly closed and the patients recovered.

The operator then cuts down upon the forceps from above. As soon as the tip of the forceps comes through into the pelvis the vaginal opening is made wider by spreading the forceps from below. A wide retractor held against the posterior surface of the pelvic wall acts as an excellent shield or protector for the rectum while the vaginal forceps grasp the cigarette drain and draw it as far into the vagina as the operator deems wise. The surgeon now adjusts the free gauze ends in the pelvis, cutting off any excess that may be necessary, and so places the drain that, if possible, the gauze does not come in contact with any small bowel.

The vaginal drain is usually not disturbed for at least four days, unless there are symptoms suggesting that it has become clogged or that it is too tightly grasped by the vaginal opening. If this is suspected the drain is merely drawn down for about half an inch. At the end of the fourth day half of the drain is removed and on the following day the remainder is taken out. Cullen[2] cautions against too early removal of the drain lest a loop of small bowel be adhered to the drain and herniated through the vaginal incision. He mentions such an accident occurring in the work of another surgeon. The accident was promptly recognized and the prolapsed bowel at once pushed back into the pelvis but the patient immediately showed signs of collapse and died in a few hours.

30 North Michigan Boulevard.

REFERENCES.

1. Kelley and Cullen: Myomata of the Uterus, Saunders, 1909; p. 624.
2. Cullen, T. S.: The Surgical Method of Dealing with Pelvic Infections. *Surg. Gynec. Obst.* Vol. 25, p. 134, Aug., 1917.

Vertex Occipitoposterior Position: Treatment of More Than Five Hundred Consecutive Cases

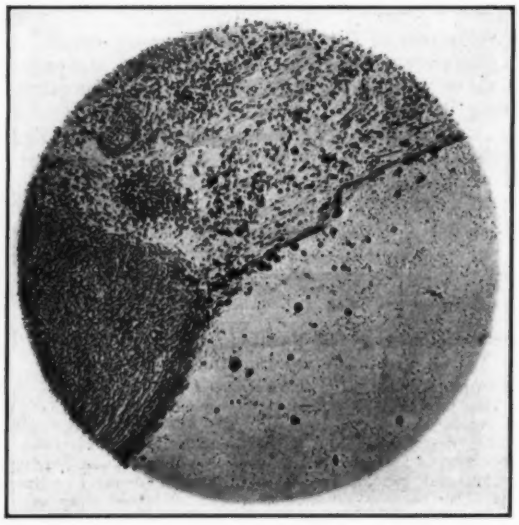
According to Samuel M. Dodek, Cleveland (*Journal A. M. A.*, May 16, 1931), the vertex occipitoposterior position is still considered a serious complication of labor, and rightfully so. Accurate diagnosis is the most important factor in the proper management of this malposition, and should be simple. Abdominal palpation and auscultation, combined with rectal examinations and a close observation of the course of labor, offer excellent aids toward accurate diagnosis in the great majority of cases. Vaginal examination is rarely essential. The occipitoposterior position occurred among 29.8 per cent of the 1,723 dispensary cases of vertex presentation in the Cleveland Maternity Hospital over a period of nearly twenty-one months, and the greatest majority of these were delivered by the resident staff. The ratio of right posterior to left posterior was as 1 to 0.82. Only a small minority of fetuses in persistent occipitoposterior positions will rotate spontaneously after from two to two and one-half hours of second stage labor, and the fetal loss from intracranial hemorrhage after more than three hours of second stage labor warrants correction of the malposition and delivery, well before this period of time has elapsed. Internal podalic version is the method of choice for delivery of fetuses in persistent posterior positions in which the greatest diameter of the head is arrested at the pelvic brim. The high forceps operation is almost never done. The modified Scanzoni maneuver of Bill is a completely satisfactory method of rotating the persistent occipitoposterior fetus which has descended below the brim of the pelvis and is attended by a minimum of danger to the child, while the maternal perineum receives no undue trauma or laceration incident to rotation. Perineal lacerations may occur only as a result of subsequent extraction. A certain number of fetuses in posterior positions are arrested after describing an arc of 90 degrees and remain in the transverse diameter of the maternal pelvis. Rotation may be satisfactorily completed and extraction may follow by a single cephalic application of the forceps. Manual rotation is not recommended because of the complications that may attend displacement and manipulation of the head. Where these complications do not arise, the results are good. Delivery of a fetus in the persistent occipitoposterior position as such is unnecessary and is attended by danger to the child. One hundred and forty-eight fetuses in occipitoposterior positions of the 514 of this series rotated spontaneously. The remaining 366 were delivered as follows: 59 by internal podalic version; 276 were rotated by forceps; 12 were rotated manually and extracted by forceps, and one was delivered in a persistent posterior position. The remaining 18 were delivered by cesarean section. The fetal mortality for all full term babies from all cause was 3.9 per cent. Pulmonary emboli caused the two maternal deaths.

A Note on the Association of Swelling of the Optic Nerve-head and Iridocyclitis

JOHN N. EVANS, M.D.
Brooklyn, N. Y.

In two cases recently recovered from metastatic iridocyclitis, the nerve-heads were found to be apparently swollen. There was enlargement of the blind-spots and a marked decrease in visual acuity. The peripheral fields for white showed no defects. While such cases are not common, we all see them from time to time, and try to explain the mechanism.

It has long been known that the nerve-heads show



Histocytes containing ink granules wandering into substance of nerve-head

some involvement in most violent inflammatory processes of the anterior segment of the eye.

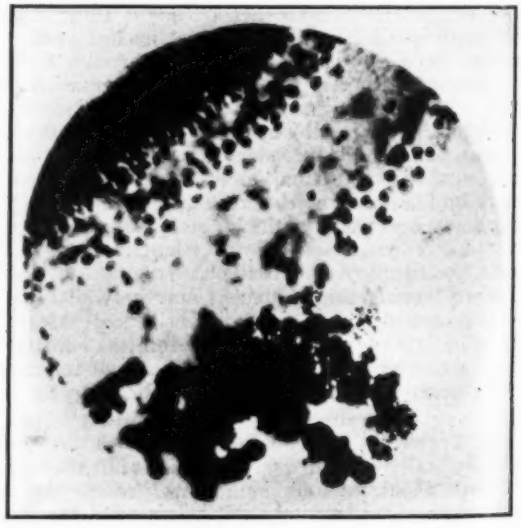
In the light of the new viewpoint on the reticuloendothelial system given us by Maximow and others, we should consider the possible relations of the motile tissue cells in all pathological ocular conditions.

We are in the habit of thinking of swelling of the optic nerve as belonging to one of two general divisions in explaining the mechanism of the process: first—that which is being particuuarly stressed of late—the mechanical theory; secondly, the inflammatory. In explaining the apparent involvement of the nerve-head in the two cases of metastatic iridocyclitis referred to, one would perhaps think that the same source of infection causing the anterior eye infection had produced a similar process within the nerve. While this may be so, some recent experiments, on an entirely unrelated problem, seem to have produced results worthy of note.

A series of rabbits were being studied in which various particulate stains were injected into the anterior vitreous region. Under ophthalmoscopic observation, the particles seemed to scatter in rather lawless fashion.

The sharply defined globular mass of pigment which had been injected into the anterior vitreous (India ink for instance) gradually became fuzzy-edged, and by the end of the first week seemed to be sending out thread-like streamers in all directions. The majority, however, proceeded downward to the surface of the retina. In a few days there was evidence that the particles were under the retinal vessels in places, while great quantities had passed upward over the retina and had congregated on, and apparently in, the substance of the nerve-head. This same picture resulted when other pigments were used. The rabbits injected were albinos—ocular pigment from brunette rabbits was also injected, and followed the same mechanism of scattering as the India ink, etc. The whole process was conspicuous by the very slight general ocular irritation. The media remained otherwise clear. Slit-lamp biomicroscopy and ophthalmoscopic examinations were satisfactory during the four weeks (average) that the pigment was watched.

The accompanying photomicrographs illustrate the microscopic appearance. The pigments used were so fine as to exhibit Brownian movement. It will be noted from the illustration that the pigment has been taken up by the large histocytes, and that these are separate and in clumps. With the binocular microscope they could be easily localized deep in the retina and nerve-head. Plate "A" shows the granules to be intracel-



India ink = Histocytes.

lular, and Plate "B" shows the histocytes in the substance of the nerve-head.

Fuchs has told us much about the relation of the nerve-head to inflammatory processes in the anterior portion of the eye.

There is doubtless nothing new or startling in these changes, but the very graphic demonstration of this mechanism is worth recounting. The escape of particles by the posterior route instead of anteriorly through the lymph channels seems odd. A thorough study of this mechanism, in relation to

(*Concluded on page 250*)

Acute Conjunctivitis and Its Differential Diagnosis*

RODOLPH M. CUTINO, M.D., F.A.C.S.,
Brooklyn, N. Y.

THIS paper is written not to criticize the doctor who makes an error in diagnosis but to help him differentiate the other more serious eye conditions from acute conjunctivitis. It is a common procedure for a doctor who sees an inflamed eye to call it conjunctivitis and to prescribe boric acid solution and argyrol because he does not know the differential points that will help him diagnose the case. It is the aim of this paper to give the differential points between acute conjunctivitis and other eye conditions, especially acute iritis and acute congestive glaucoma, and at the same time briefly describe the different diseases.

Acute catarrhal conjunctivitis is transmitted by bacterial infection and the most common organisms are Koch-Weeks, pneumococcus, Morax-Axenfeld, and Micrococcus catarrhalis. It is an infection, and sooner or later both eyes become involved if not treated. Therefore, if the observer sees a patient with one eye red and the other eye apparently normal, it is wise for him to think of conjunctivitis last, and try to find another cause for the inflamed eye.

On examination we note an increased conjunctival secretion with flakes of mucus swimming in the lacrimal fluid. The secretion dries at night upon the edge of the lids and glues them together so that when the patient wakes in the morning he cannot open his eyes. The conjunctival inflammation assumes a reticular or fine network-like appearance and is as pronounced at the periphery as it is near the cornea; the inflammation also involves the conjunctiva of the lids and the retrotarsal fold. This is a point of differentiation from corneal and iritic diseases.

By suitable treatment the duration of the disease is shortened. We use cold compresses every four hours followed by one of the organic salts of silver, as argyrol 25%, neosilvol 20%, or protargol 5%. It is essential to take a smear or smear and culture of the conjunctival secretion to know what organism we are dealing with. If the smear reveals pneumococci, we stop the silver salt and prescribe optochin solution ½ to 1%, which is specific. If Morax-Axenfeld organisms are found, zinc sulphate solution ¼% is substituted for the organic salt of silver.

A condition which is very common and which is often called conjunctivitis because of the associated inflammation of the eye is the presence of an ocular foreign body. It is not uncommon for a cinder to get into the conjunctival sac above and be localized deep in the cul de sac where it is very difficult to see even on everting the upper lid. The cul de sac, however, can be brought into view if the doctor, while he has the upper lid everted, will press on the lower lid against the eyeball. It is possible for a foreign body to be in the eye for several days and cause marked congestion of the conjunctiva; and the doctor being unable to see it and finding no other pathology in the eye will call it conjunctivitis. A foreign body, however, may be blown on the cornea as often happens on a windy day. The examiner because of poor illumination may miss it, especially if it is white or very small. In such a case he should either use a large electric bulb or focus a light on the cornea with a reading glass and from several directions. Even a case of intraocular foreign body which was treated as conjunctivitis has been reported.

Trichiasis, or inturned lashes, which often complicates cicatricial trachoma, causes inflammation of the eye by mechanical irritation. The treatment consists in pulling out the distorted lashes.

A very important and common eye condition which may be mistaken for acute conjunctivitis is acute iritis. The patient complains of pain which is localized in the eye or radiates to the supraorbital region, while in acute conjunctivitis there is no pain. The conjunctival injection is another of the differential signs. In conjunctivitis, as mentioned before, the injection is present throughout, including bulbar retrotarsal fold and palpebral conjunctiva, while in iritis it is limited to the region around the limbus and the rest of the conjunctiva is exempted. The iris in iritis becomes muddy in appearance and discolored, and the surface outlines become indistinct. This is easily noted by comparing it with the iris of the other eye. Another differential point is the small size of the pupil, which is also irregular and does not react to light.

The treatment of acute iritis is both constitutional and local. Iritis is almost always secondary to a systemic condition and it is necessary to find the etiological factor. Syphilis is the most frequent cause, being found in 60% of the cases of iritis. Gonorrhea is present in 15%. The other main causes are foci of infection, diabetes, and tuberculosis. The local treatment consists of the use of atropine sulphate solution 1% instilled in the eye three times a day, preceded by hot, moist compresses. The atropine dilates the pupil, pulling it away from the anterior surface of the lens, thereby rupturing posterior synechiae if they are present and preventing the formation of new ones.

Another condition which has to be differentiated from acute conjunctivitis is acute congestive glaucoma. The patient complains of poor vision and frontal headaches, but the most important symptom is the presence of colored rings around lights. On examination it is noted that the tension of the eyeball or intraocular pressure is markedly elevated and this is the characteristic feature of this disease. The pressure is taken either by palpation with the index finger of each hand or is measured with a special instrument called Tonometer. The eye itself reveals an injection of the bulbar conjunctiva more pronounced near the limbus. The cornea is hazy, the anterior chamber is shallow, and the pupil is dilated in an oval manner and does not react to light.

The treatment of this condition consists in the instillation in the eye of a miotic, as a solution of pilocarpine muriate 2% or a solution of eserine salicylate ½% every three hours, preceded by hot, moist compresses. The general treatment consists of rest in bed, sweating, plenty of fluids and sodium salicylate or aspirin by mouth for the pain. If the pain is not relieved morphine is used hypodermically. If the eye does not respond to medical treatment, the tension

*Read before the Italian Medical Society of Brooklyn, Mar. 4, 1930.

does not diminish, and the vision gets worse an operation is performed.

Acute congestive glaucoma is differentiated from acute conjunctivitis by the presence of pain, the diminution of vision, the symptom of colored rings around lights, the increase of intraocular pressure, the hazy cornea, the shallow anterior chamber, and the dilated, oval pupil which does not react to light.

At times it is difficult to differentiate acute glaucoma from acute iritis as both share the symptoms of pain, ciliary injection, and discoloration of the iris, but in acute glaucoma there is the shallow anterior chamber, the dilated, oval and light, fixed pupil, and the elevation of intraocular pressure. These signs are absent in acute iritis.

There are several other eye conditions, such as acute trachoma, follicular conjunctivitis, episcleritis, and keratitis, which at first may be mistaken for acute catarrhal conjunctivitis, but on more careful examination the diagnosis is very easily made.

Gonorrheal ophthalmia at the onset, may, in very mild cases, resemble acute catarrhal conjunctivitis. For this reason it is very important to take a conjunctival smear as early as possible in all cases of acute conjunctivitis. However, the diagnosis offers no difficulty in most cases of gonorrheal ophthalmia because of the marked redness, swelling, and tenseness of the lids, chemosis or edema of the bulbar conjunctiva, and the profuse purulent discharge. The diagnosis is confirmed by the smear.

To conclude, the characteristic features of the three main diseases to be differentiated are as follows:

In acute catarrhal conjunctivitis, the involvement is usually bilateral, the injection is as much pronounced at the periphery and in the palpebral conjunctiva as it is in the bulbar conjunctiva. There is no pain or disturbance of vision. On examination, no pathology is noted in the cornea, anterior chamber, iris, and pupil.

In acute iritis, there is the presence of pain, the limitation of the injection to the region around the limbus, the discoloration of the iris, and the small pupil which is irregular and does not react to light.

In acute congestive glaucoma there is the presence of pain and the symptom of colored rings around lights, the increase of intraocular tension which is diagnostic, the cloudy cornea, the shallow anterior chamber, and the dilated, oval and light, fixed pupil.

165 Clinton St.

A Note on the Association of Swelling of the Optic Nerve-head and Iridocyclitis

(*Concluded from page 248*)

various inflammatory conditions of the eye and in relation to the dissemination of new growths, might be very fruitful. The fact that copper is transported from the eye to the liver and other organs is worth recalling in this connection.

The studies of Fuchs[1] and Meller[2] are among the most interesting and valuable contributions in this field, and are particularly useful in suggesting new avenues for special research.

23 Schermerhorn Street.

1. Fuchs, E.—*Graefe's Archives*, Vol. 99, 1919.
2. Meller, J.—*Archives of Ophth.*, Vol. LVII, No. 2; also in Fuchs' *Festschrift*.

Correspondence

Maggots

To the Editor:

Sterile live maggots, ready for use, are now being supplied by Lederle Laboratories, of New York City, under direction of Doctor Edward F. Roberts.

Doctors Roberts and Frank Child, of the Mather Memorial Hospital, Port Jefferson, Long Island, will publish their paper, with report of twelve (12) cases of osteomyelitis treated with maggots, in the August (1931) number of the *New York State Journal of Medicine*.

Maggots, in the treatment of osteomyelitis, have been used recently by Frank Child, Winthrop Phelps, of the New Haven Hospital, John A. Brooke, J. J. Nutt, M. Harbin, of the Children's Hospital, Denver, Colorado, and by Fenwick Beekman.

In the near future, I believe, the Bureau of Entomology, United States Department of Agriculture, at Washington, through the efforts of the senior pathologist, Dr. G. F. White, and the senior entomologist, Dr. Robinson, will be in a position to supply sterile, live maggots of the blow-flies for use in the treatment of tuberculous abscesses, chronically discharging infected wounds, complicated infected fractures, and osteomyelitis.

An article on the subject of "Maggots" by the late Professor Wm. S. Baer, of Johns Hopkins University, Baltimore, and his co-workers, will shortly appear in *The Journal of Bone and Joint Surgery* (Boston).

Professor Dr. Hans Spitzy, of the Orthopedic Hospital, of Vienna, and his assistant, Dr. Walther Aberle, are also interested in this work.

It now appears that before the end of the current year *Maggots* will have attained an exalted position as a general therapeutic agent and a much used viable antiseptic remedy in the above mentioned conditions.

HYMAN I. GOLDSTEIN, M. D.

Camden, New Jersey.

The Spahlinger Vaccine

A further test of the Spahlinger vaccine intended for the immunization of cattle against tuberculosis has been made recently on a farm in Norfolk, a large agricultural county of England, it is said, with marked success. The committee controlling this test were so greatly impressed by the outcome that they feel it their duty to make it known widely. The committee include several medical men, among whom is Dr. L. Drummond Shiels, British Under Secretary for the Colonies, and two members of the veterinary profession.

The Spahlinger method of immunizing cattle against tuberculosis has been before the public for years and the claims made for it have in the past received the support of many influential persons, including medical men. Dr. Henry Spahlinger has conducted and supervised a great deal of experimental work at his farm near Geneva, some of which has been published in book form, and a description of the further test in Norfolk is the last pronouncement on the subject.

It is narrated that in December last eighteen calves of various breeds were vaccinated with a single dose of simplified bovine vaccine supplied by Dr. Spahlinger, which, according to the account given to the press, was prepared from dead germs. Some of the injections were minute while others were large. Six months later, the calves which had been thus vaccinated were injected with massive doses of living bovine tubercle bacilli, with the result that all the calves save one were alive and in good health nineteen weeks later. The calf which died nearly sixteen weeks after the injection had received the smallest dose, merely a trace of vaccine. Moreover, four calves injected in July with the same massive doses of living bovine tubercle bacilli as the eighteen, but which had not been vaccinated after the Spahlinger method, died within eight weeks, the cause of death as stated by independent bacteriologists being tuberculosis. This evidence is regarded by the committee of control as conclusive proof that the Spahlinger vaccine does confer a very effective resistance to tuberculosis, emphasized by the fact that when the virus was administered intravenously in such massive doses it killed unvaccinated calves in a few weeks' time.

Claims of a somewhat like nature have been made formerly but have not materialized, at any rate, not to the extent hoped for when put to a practical test. Von Behring, for example, made large claims for his vovovaccine which were not realized outside the laboratory.

It is in no spirit of carping criticism that the suggestion is here made that further and more convincing proof must be given ere the claims made for the Spahlinger vaccine are accepted without cavil by the majority of medical scientists.—*Med. J. & Rec.*, May 6, 1931.

Cultural Medicine

Embalming, and Its Medical and Legal Aspects*

Part II

JEROME ALEXANDER, M.S.C.
New York, N. Y.

(*Concluded from page 221, June, 1931, issue*)

EMBALMING

We now come to a consideration of embalming proper, for which the preceding remarks will serve as a background. It must be emphasized that our knowledge is not sufficient to answer satisfactorily all the questions and problems that present themselves, but that by a careful study of the underlying facts and principles, accompanied by proper experiments, we may hope to make steady progress in the right direction.

Formaldehyde is the material mainly used in modern embalming fluids, in fact, the laws of most States definitely demand and prescribe its use. Besides its well-known antiseptic and germicidal value, it exerts a coagulating and stiffening action, and one of the essentials in embalming is to prepare a fluid of such concentration and mixed with such ingredients that it may be uniformly distributed throughout all the tissues without at the same time causing an unnatural hardness or discoloration.

If the formaldehyde is used in too concentrated a condition, it tends to cause clotting of the blood and thus prevent proper distribution through the circulatory system into the tissues. Improper distribution may lead to local breakdowns technically known as skin-slip and the like.

A well-trained and skilful modern embalmer can, within a few hours, produce a result eminently satisfactory from a sanitary as well as a humane point of view. Evidences of injury and even disease may be to a large extent concealed and the embalmer is frequently guided by a recent photograph of the deceased. A skilled embalmer can generally make the deceased look as if merely sleeping. This is the case with Lenine, embalmed by Professors Sbarsky and Worobjeff, before whose remains millions of Russians reverently pass.

The aesthetic side of embalming is of marked benefit to many of the survivors. For, no matter what cold materialism may say, last impressions are sometimes very lasting impressions.

Apart from this, there are many reasons why embalmers should be more carefully trained and raised to a higher position than they now occupy. If we hark back to the experience of physicians, we will see that embalmers, provided they are properly educated and trained, may be able to do much to help the medical profession and may also be of great use to the legal authorities in the detection and punishment of crime.

The embalming profession must work towards this ideal, for the status of a profession depends on the character, quality and ability of those who practice it. It took years of effort on the part of many able men the world over to make the medical profession what it is today. The man of medicine was preceded by the medicine-man. Then came the leeches (who applied leeches) and the barbers (who "drew teeth and let blood"). We had the alchemist before the chemist. Not many years ago a young man who served an apprenticeship with a practicing doctor or a practicing lawyer could, without any formality, call himself a "Doctor" or a "Lawyer." Embalmers are now in the "apprentice" stage. It is up to them, with the help of all who can give help, to work towards the high position they occupied in ancient Egypt where the embalmer was both physician and priest.

CO-OPERATION BETWEEN PHYSICIAN AND EMBALMER

Although the enlightened Egyptians compelled co-operation between embalmers and physicians, we have in our time to face the fact that they often work at cross purposes. Necropsies are essential to medical progress, but all too frequently embalmers prevail on the family to forbid necropsy for fear that disarrangement of the circulatory system may make good embalming results difficult, if not impossible.

There is something to be said on behalf of the embalmer, for apart from the fact that physicians themselves sometimes fear a conflict between their diagnosis and the autopsy findings, it often happens that the dissector does not give proper consideration to the embalmer.

Drs. John A. Kolmer and Fred. Boerner (*J. Lab. & Clinical Medicine*, 1926, IX, No. 7) have given this subject careful and sympathetic consideration, and have outlined necropsy methods which will not unduly increase the difficulties of embalming.

Approaching the question from the embalmer's side, the author, in cooperation with Fairchild Sons and the National Selected Morticians, developed an embalming fluid which, with slight modification, Kolmer and Boerner report as satisfactory for injection before necropsy. They conclude:

"Without detailing the results of our investigations at this time we believe that it is readily and easily possible for the physician to meet all the legitimate objections to the necropsy raised by the mortician either by conducting the necropsy with the technic and courtesies summarized above or by asking the mortician to embalm before the necropsy. If the latter procedure is adopted we are in position to state that if the undertaker will do his work thoroughly in order to obtain a wide distribution of the embalming fluid throughout the capillary tree, he need not worry at all about preservation and that for this purpose he may use either his usual embalming fluid diluted one-half the usual strength (with full strength for the head) or one of the newer fluids, like those prepared by Professor Hewson and Mr. Alexander. It is true that the pathologist may encounter the fluid in some of the great vessels and serous cavities but this need not be confusing; in so far as the purposes of the necropsy are concerned its ends may be readily attained and the mortician and friends of the deceased may be assured that the preservation of the body will not be in-

* Read before the Society of Medical Jurisprudence, at the New York Academy of Medicine, May 12, 1930.

terfered with, provided the undertaker injects the embalming fluid with a reasonable degree of skill and thoroughness. If the mortician will do his work well and the pathologist conduct the necropsy with reasonable skill and care and be not lacking in sympathy and courtesy toward the mortician, there need not be any excuse for lack of heartiest cooperation between the medical and undertaking professions, with an increased percentage of necropsies so vitally necessary for the advance of medical science and education."

Co-operation Between Embalmers and the Legal Authorities

Since the embalmer must rather minutely inspect all dead bodies, he is in a position to detect evidence of crime; and he should be trained with this in mind. Certainly, in the absence of a physician or legal officer, the embalmer should know how to protect evidence, and to estimate the approximate time since death occurred. A special group of *post-graduate embalmers* could be so trained and licensed as to have authority to declare officially the *fact* of death.

Dr. E. M. Vaughan (formerly Medical Assistant District Attorney, Kings County, N. Y. City), in a note in the *Journal of the American Medical Association*, 1921, Vol, 76, pp. 608-609, states:

"Medicolegal volumes fail to reveal any method whereby one can determine even approximately how long a body has been dead. When a dead body is discovered the police naturally turn to the physician for information as to the probable time of death. We are therefore confronted by the problem of discovering some method that can be relied on to give fairly accurate information on this subject.

I have found that, taking advantage of the fact that those portions of the body farthest from the heart—namely, the extremities—are the first to cool, it is possible, by dividing the lower extremities into ten parts, to determine the approximate time of death with a fair degree of accuracy. The method is as follows:

Divide the leg from ankle to knee into three imaginary parts, take the region of the knee-pan as the fourth part and divide the thigh into six parts, making ten parts in all, and make allowance of one hour for each division; then by sense of touch note the difference in temperature in each section. Allowing one hour for each section and starting with Section 1 (Section 1 being the lowest third of the leg above the ankle), if Section 1 is found to be frankly cold as compared with Section 2 (middle third of the leg above the ankle), one may state that the body has been dead about one hour. If in Section 2 one finds frank coldness as compared to Section 3, the body has been dead about two hours, and so on up the leg and thigh until one is able to state approximately how long a body has been dead, if death has occurred within ten hours.

This method has been proved to be fairly accurate in more than a hundred examinations conducted by Assistant Medical Examiners Martin and Boettiger of Kings County, and by Drs. Hala and Atchley of Kings County Hospital, together with myself. The tests have been conducted only where the prevailing atmospheric temperature ranged from 40 to 80 F."

In a private communication to the author he gave the following results of his experience:

"The time of death cannot be determined by the presence or absence of rigor mortis (contracted muscles). Rigor mortis may be of rapid or slow onset. It is rapid after prolonged muscular exertion, or if the body is kept in a warm atmosphere. It is rapid after poisoning by hydrocyanic acid, chloroform, strychnine, digitalis, caffeine, and quinine. It is slow in onset following brain injuries, hemorrhage, irritant poisonings, and if the body is kept in cold air.

"Post-mortem lividity (hypostatis) is due to settling by gravity in those parts of the body nearest the supporting surface. That is, in a body lying on its back, the blood will settle in the back of the head, neck, backs of shoulders, trunk, thighs, etc., and the lowest parts of the organs. The blood will not settle in parts of the body where pressure from the weight of the body itself prevents it. Those portions of the body in direct contact with the surface on which the body lies will show blanched or normal colored skin. Post-mortem lividity occurring in bodies dead from disease or violence will be of a bluish color unless the body has been kept cold, when it will have a pinkish tinge. Post-mortem lividity in gas or cyanide poisoning is of a pinkish color irrespective of temperature. Suffocation and strangulation cases show a post-mortem lividity about the face and neck, and the whites of the eyes may be reddened or contain small points of hemorrhage. Post-mortem lividity appears in from one to twelve hours after death, generally within six hours.

"Decomposition of the body begins soon after death has occurred, but it is not apparent for at least twenty-four hours. If the body is kept on ice or embalmed, decomposition is arrested. In unembalmed bodies decomposition is delayed in winter and is more rapid in hot weather.

"Three days after death, the body that has not been kept cold or embalmed shows a greenish discoloration of the navel and of the lower abdomen and groin. These changes may occur as early as the second day, and in excessively hot weather, within twenty-four hours.

"On the fifth day this greenish discoloration is all over the abdomen.

"On bodies that have been in water this greenish discoloration appears first in the midsternal region (or at a point where the lower ribs flare away from the breastbone).

"On the seventh day the greenish discoloration turns brownish and the face assumes a greenish hue.

"On the eighth day in cool weather, and the second day in excessively hot weather, areas of the outer layers of the skin peel off to touch, leaving the true skin beneath moist and reddened.

"On the fourteenth day, the entire body is discolored brownish, and the hair and nails are easily removed.

The gases of the rotting body collect in the hollow organs and the body cavities, causing the body to swell and eliminating the natural folds. When sufficient of these gases have accumulated within the body it will float. Thus the unrecovered bodies of the drowned come to the surface, generally in about fourteen days, earlier in summer. The decomposition of the body is more uniform in water than in air. Warm fresh water does not delay decomposition, but cold salt water preserves.

"Between the second and third week, the features become swollen and discolored so that they are hardly recognizable. The body is generally brown and shows green and black patches.

Appearance of the Blood

"Blood, after death has ensued, is darker than during life because of the lessened amount of oxygen.

"It is of a bright red color when death is due to gas poisoning (carbon-monoxide), hydrocyanic acid (used for fumigating), and potassium cyanide (used by electroplaters), and in deaths from cold (freezing) and burns.

"Blood is fluid after death from asphyxia (suffocation, strangulation), narcotics, hydrocyanic acid, and also when intensive infusion of normal salt solution has been

given during life, by the attending physician.

"Blood is brown after poisoning by sulphuric acid, chocolate color after potassium chlorate, and excessively dark after phosphorus poisoning."

Discussion

CHARLES NORRIS, M. D.: I feel it a great privilege indeed to have been able to listen to the charming and erudite paper of Mr. Jerome Alexander. I am afraid, however, that I cannot do justice to the subject. Mr. Alexander has brought up a great many points, and it would take a long time to attempt to review the brilliant pictures and photographs he showed in regard to the historical part of embalming. I think I should bring out something more in regard to present-day embalming. As you know, there has been a very unfortunate antagonism between pathologists and undertakers and embalmers. Fortunately in New York City I believe that the Metropolitan Undertakers' Association feel that in time the situation is going to be ameliorated. The point that Mr. Alexander has brought out that embalmers are not perhaps as a whole sufficiently educated is important; in other words, we mean by education that they have not enough experience and training. There is no reason why an undertaker, if he knows his job thoroughly, cannot embalm a body, no matter how it is dissected, unless of course the features of the face, namely the eyes, nose and mouth, have been terribly mutilated. I will give you a very striking illustration of that. There was a woman by the name of Elsie Regan who was shot four times, in-and-out wounds of the face and head, and an in-and-out wound of the neck. I asked my friend to embalm the body for me after the autopsy. The body was not mutilated from my autopsy, because almost every bone in the head was broken; the vessels in the neck were perforated, and of course I had to take the organs of the neck out, and there was practically nothing left of the vessels underneath the base of the skull. Curiously enough, that woman stayed for three weeks in the Morgue. My purpose in embalming her was because she was not identified. If the embalmer knows his business, he can do a great deal. Of course my objection to having an embalmed body for the purpose of autopsy is the harm done by the embalming itself, which is almost needless to point out. In the first place, it destroys any possibility of any bacteriological work being done. It destroys the possibility of demonstrating the presence or absence of alcohol, either methyl or grain; it is almost impossible to prove the presence or absence of cyanide, and it interferes with the detection of a number of other poisons and substances which I need not mention. Even for microscopic work it sometimes interferes, and it also interferes with a general consideration of the viscera—how they appear as to their stage of congestion, etc. I can see perfectly well how with a person dying with only a moderate coronary sclerosis, but who had a sudden thrombosis, it would be almost impossible to demonstrate the presence or absence of coronary thrombosis, especially an acute one. There are times when embalming, especially of the brain, is a good procedure, for instance, on Ward's Island, where they wish to study the finer cytological details of the brain, there probably the best thing to do is embalming through the carotids. There you have a beautiful fixation of the cells, much better than if the brain were removed by the usual autopsy routine.

HOWARD W. NEAIL, M.D.: Mr. Alexander's paper has covered the subject so thoroughly that little is left to discuss, and Dr. Norris, with his wide experience, always finds interesting and new lines of thought to add to papers on allied subjects.

Embalming has been practiced for many centuries. Two objects have always been in mind: the preservation of the body from decay, and the perpetuation of the personal identity of the deceased. The motive was a belief in the physical survival of the dead. Formerly, it incurred great expense to embalm, resulting in a limited number of cases.

It is interesting to note the old methods, especially that the same methods were used in widely separated sections of the globe. It was contrary to the law to section a dead body. Dissection of a human was a capital offense. In order to avoid punishment those having the body in charge never made the necessary body incision, but depended upon someone else, who often had to leave the country. Once the thorax and abdominal cavities were open, the viscera and brain removed, they proceeded to prepare the body for preservation. The cavities were filled with spices and aromatic substances. It was then placed in a salt brine for 70 days, after which bandages impregnated with gums of various kinds were wrapped around the body. This procedure existed three and four thousand years ago; bodies so prepared have not only been found in Egypt, but the Incas in South America and certain tribes in Australia practiced a like art. Alexander the Great was embalmed with honey and spices.

It was not until long after Harvey discovered the circulation of the blood in 1628 that arterial embalming found its place. During the 17th Century real scientific research began, resulting in the present day methods and complications. Formerly embalming fluids contained arsenic, as well as other poisonous substances, and this brings up the question as to the value of detection of arsenic in cases where it has been detected after the body has been embalmed.

In one celebrated case, that of Sarah Jane Robinson, one of the expert chemists could not be made to say in his testimony that in an embalmed body the presence of arsenic was indicative of having been administered before death; on the other hand, another expert testified that on account of its unequal distribution throughout the various tissues of the body, it *might* be inferred that arsenic recovered from an embalmed body was injected post-mortem, and that if the amount of arsenic found in the body was uniformly distributed through its organs, inference might be drawn that the poison was received and absorbed before death. It has sometimes been contended in trials that a buried body may absorb arsenic from the surrounding soil in a cemetery. If arsenic is found in such soil, it is also in an insoluble form generally known as arsenical iron pyrites, but when bodies are exhumed for chemical analysis, it is desirable to collect samples of the soil surrounding the corpse for the purpose of analysis.

Fortunately, the old arsenic, zinc, and mercurial combinations have been largely superseded by formalin, a much more desirable preparation, although it may irritate the eyes, produce eczema of the hands, or deaden the sensibility of the finger tips. It is customary for the embalmer to use a trocar to puncture and aspirate the thoracic and abdominal cavities; in so doing the organs are considerably lacerated and contents spilled. The disadvantage of this method is quite evident: difficulty in determining whether the openings were made before or after death.

In cases of abortion with peritonitis, there may be considerable difficulty in determining whether the openings were made before or after death. Such punctures may also complicate matters by opening abscesses, cysts, aneurysms, etc.; in cases of poisoning, by allowing the stomach contents to escape, and the fluid may contain the same substance as that which caused death. Even when formalin has been employed as in the recent Haines case in New Jersey, the syringe may have been previously used for injecting an arsenical preparation.

There are definite laws to guard against the embalmer proceeding until he has satisfied the proper authorities that the death is one of natural cause or otherwise. To proceed with embalming before he has the signed certificate and the permission from the Health Department is considered a crime and classified as a misdemeanor.

E. E. SMITH, M.D.: I may cite one case which is illustrative of the difficulty of determining whether or not a poison has been administered before death, and particularly arsenic, where there has been embalming. This was a case some years ago that was removed to a neighboring State, where it was discovered that there was arsenic in the body, so that it was returned to the original State for the purpose of deciding whether or not the arsenic was indicative of criminal practice. The facts were that the embalming was done in a small town, and the law forbidding the use of arsenic had been passed only very recently. The toxicologist who originally examined this body had found the arsenic equally distributed, that is to say, per weight of organ, the amount of arsenic in the brain and the amount of arsenic in the liver were the same. Contrary to what was said by one of the previous speakers, it is my opinion that where arsenic is taken by mouth and absorbed, that the percentage of arsenic accumulated in the liver is very much greater than the percentage of arsenic that would be found in the tissue of the brain. In fact, the amount of arsenic that may be present in the brain is relatively small, according to my experience. I do not know whether Dr. Norris was in on that work or not, but at the time he and I were in New Haven we did some experiments on dogs in which we put arsenic in the gastrointestinal tract, and buried the animals for some weeks, then dug them up, and studied the distribution of arsenic in these dogs, and we found that the arsenic was distributed proportional to the distance from the point where it got in through the gastrointestinal tract. In the case of death from arsenic, the distribution is likewise very irregular, due to the fact that it is naturally eliminated through the liver. In this particular case, the decision of the Coroner's jury was that death had resulted from arsenic poisoning. My explanation is that this undertaker who conducted this embalming had the best-paying case that he had ever had. It was a small place, and he had never had such wealthy clients before, and he had never embalmed such an important case. It is my feeling that he had some of the old embalming fluid around, and he stuck some of that into the body to try and do a particularly good job, thinking that the body was

going to a neighboring State and it would never be discovered that he had departed from the orthodox regulations for embalming bodies. Yet in spite of the even distribution of the arsenic throughout the body, it went on record that this man died from poison. The reason the thing never went any further was because the Coroner or somebody else lacked the force of conviction to mention the suspicious individuals, although everybody else knew them, and so he said that the arsenic was administered by a person or persons unknown. I travelled around to get a look at that body, and finally located it, and notwithstanding the fact that an almost superficial examination of the body revealed other causes of death that were very apparent, it was put down as a case of arsenic poisoning. The introduction of poison by embalming is a matter of some considerable importance, and is a possibility that has to be taken into consideration.

ALFRED PLAUT, M.D. (by invitation): It seems to me that among the dangers with which the medical profession has to struggle, not the least important lies in the fact that too many not strictly medical professions try to have a word in medical and scientific questions. Is there not a danger, when we have better trained undertakers and better trained embalmers, that there will be another kind of people who will try to interfere with the medical profession? Is embalming really of so great ethical or social value—because I do not rate the scientific value highly? With a little touch of the imagination I am able to see the morticians going up to the State buildings in Albany to ask for a degree, as certain other non-medical professions have done.

L. W. ZWISOHN, M.D.: The historical facts about the Egyptian mummies were very interesting. When Clemenceau, the War Prime Minister of France, died, he was buried standing up. Was that the custom of the ancient Egyptians?

The reader of the paper said that there are two deaths: one when the body dies, and then when certain cells of the body, which remained alive after death, die. The life and death of the cells go on side by side during the lifetime of the individual all the time. Every cell of an animal is a living entity in itself. Every cell performs its duties, generates new cells, and dies. It is then eliminated from the living body.

The speaker of the evening advocates that embalmers should be of higher education so that they should be able to make a diagnosis of the disease which caused death. For this purpose we have pathologists who are graduates in medicine. To detect criminal deaths, we have our Medical Examiners of high standing, employed by the criminal authorities, paid by the State. I am of the opinion that it would be a menace to the public health to have men allowed to embalm a body before an autopsy is performed by a competent pathologist.

L. T. LEWALD, M.D.: I was interested in Mr. Alexander's paper. He brought up two questions I should like to discuss. The first is in regard to insisting that a physician should always be the one to pronounce a person dead. In my experience I have known of two cases which had not been seen by physicians, and who reached a mortuary. One may interest you, Mr. Chairman, in your experience as an obstetrician. Twins were delivered by a *midwife;* one of the twins no doubt was born dead, and it was presumed that the other was also dead, but no physician was called in. The bodies were brought to the mortuary by the father, and at that time we did not have the system which we have now with Dr. Norris as Medical Examiner, but those connected with the medical schools were sometimes asked by the Coroner's Physicians to inspect bodies for them, and in inspecting the body of one of the twins, I found the child was alive. It was immediately taken to a hospital, and put in an incubator, but it did not survive very long. However, this illustrates the necessity of no embalming taking place before a physician had definitely seen the individual and made the usual tests of death. I think that is a very important point. I would not be surprised if embalming did take place at times before the attending physician had seen the person after supposed death had occurred.

The second case occurred in a hospital and was that of an adult suffering from a fatal lingering disease. I am not familiar with all the details, but probably what happened was that a nurse in the middle of the night called an interne to pronounce the man dead. Probably the interne, having seen the patient earlier in the evening, and knowing that life was only a matter of hours, may have failed to make the usual tests and may have instructed the nurse, without viewing the body, to send it to the mortuary. At any rate, definite signs of life were found about ten hours later, and the case was returned to the ward, where the patient finally died a few hours later.

The question of the preservation of the body for identification I think is a very important one, and Dr. Norris has brought out that there is no reason why a post-mortem examination should interfere with embalming. The importance of this was illustrated by a case of Dr. Law's, in which the question of identification was settled by sending a body from Africa to New York, and having it identified by an X-ray examination, because there had been a previous X-ray examination five years before of the head, sinuses and mastoid region, and in order to settle an estate, it was necessary to identify this body. It was settled satisfactorily by comparing the X-rays of the skull with the X-rays taken five years previously, and the similarity between the two was so definite that the decision was immediately rendered that it was the individual in question.

These studies of the Egyptian mummies are interesting, particularly as brought out by Elliot Smith's work. He is Professor of Anatomy in the University of London, and has X-rayed some thousand mummies. It is interesting to learn that some of the diseases we have today were present seven thousand years ago, such as arthritis and certain deforming lesions of the body, such as achondroplasia. These are things that are worth knowing, and without proper embalming or mummification, such facts could not have been revealed by X-ray examination 7000 years later.

JOHN KIRKLAND CLARK, ESQ.: I notice that the subject of the evening was "Embalming, and its Medical and Legal Aspects." I have listened with anxious ears for a discussion of some of the "legal aspects" to be brought up. I have listened in vain—and I have thought in vain for any helpful contribution to the subject passing through my mind.

All that I can recall is the classic story of the actor playing Hamlet in a small town, where something went wrong with the curtain at the grand finale. While Hamlet was lying prone, and the curtain came down two or three feet from the floor, where it stayed—after waiting in vain for the situation to be remedied, he rose and stretched, and said, "No peace, even in the grave!"

JOSEPH BEIHILF, ESQ.: I am somewhat inspired by Brother Clark's example as a lawyer to make some contribution to the legal side of the question of embalming. I had a case in the Supreme Court in which the testimony of the embalmer became very important. The question arose, was a police officer killed by a high tension electric wire, or was he killed by lightning? There had been an electrical storm, and certain high tension wires came down. We contended that the police officer had been killed by coming in contact with the high voltage wire. The embalmer had had experience in embalming both persons who had been killed by electricity and ones who had been killed by lightning. In the cases that he had embalmed, where it was conceded that the dead man had been killed by lightning, the body of the dead man showed a peculiar burn in the nature of the branch of a tree, and in the cases where the man had been killed by electricity, they showed an ordinary burn. He said in the cases he had endeavored to embalm where they had been killed by electricity there was a considerable swelling of the body, and that the body decomposed within 24 hours afterwards, and that in the cases of death from lightning, there was no such decomposition, but it was similar to the death of a normal person. He said that blood came out through the various crevices in the body in the cases of death by pure electricity. Unfortunately the Assistant Medical Examiner, who had diagnosed the case as one of electrocution, was unavailable. I think Dr. Norris may confirm the fact that this Assistant Medical Examiner is now incarcerated in an institution for mental defectives, but nevertheless the death certificate was offered in evidence. I understand that that jury paid a great deal of attention to the testimony of the embalmer, and they rendered the remarkable verdict for the death of this police officer in the sum of $55,000. The trial judge set aside the verdict on the ground that it was against the weight of evidence, and enforced his opinion that the man had been killed by lightning and not by electric wire. Since then there has been a decision in the Appellate Division, 2nd Department, in which it was held that the verdict of a jury as against the weight of evidence should not have been set aside by the trial judge, and the verdict reinstated by the Appellate Division. I believe the evidence in my case was as strong as theirs, and I am hopeful of reversing the adverse decision.

JEROME ALEXANDER, ESQ., (closing the discussion): I do not know that I can take up all the various questions raised. There is no attempt to make embalmers into physicians. All that is wanted is to have better cooperation between the medical profession and the embalmers. We are always going to have embalming. Those we love, we treat, even after their death, with love and respect. We know that when we lose a loved one, we want the remains taken care of. I do not mean to say that I am in agreement with a great many things that are being done now, like the building of elaborate tombs, but I do think the body of a dead human being should be reverently handled, and for many reasons the body should be prepared in some kind of way. We must have people to do this work, and these people should be so educated that when they do their work, if there is anything they can find which would be of benefit to the med-

ical profession, or helpful to the legal profession, they should be trained to observe and report it. There are sometimes cases where mistakes are made in diagnoses, and on autopsy these mistakes would become evident. The embalmer could aid by giving to the physician in charge, in professional confidence, any information or observation he might make. This was mandatory in ancient Egypt. By having educated embalmers, we diminish our resistance to autopsies.

In the case of the twins mentioned by Dr. LeWald, it shows very clearly that a skilful embalmer would at once have recognized that one child was alive. I do not believe that there is a single, decent, reputable embalmer who does not, before he begins his work, make a very careful examination of every body to make sure that the person is dead. My belief is that we can and should educate a high grade of embalmers who would be a great help to the medical and legal professions.

Apropos of what Dr. Smith said about the distribution of arsenic, I do not think there is any question that if arsenic were administered during life, it would be taken up preferentially by certain organs. If within a short time after death arsenic were found uniformly distributed throughout the body, this would be reasonable evidence that the arsenic had been injected. The laws of the States are stringent against the use of any poisonous substance in the embalming fluid, except formaldehyde.

Wherever there is the least suspicion of foul play or murder or crime, no person should be embalmed without the advice of the legal and medical authorities, and a skilful embalmer, if he sees the least suspicion of crime, will do nothing before calling in the proper authorities. We need skilled men; that is what my plea is for. There are many cases, as Dr. Norris has pointed out, where it would be unwise to embalm a body before autopsy, but if you look up the paper by Drs. John A. Kolmer and Fred Boerner you will find reference to a special fluid by the use of which it is possible, in the majority of cases, to have embalming done first, and not in any way interfere with the ordinary performance of an autopsy. Where bacteriological examination is necessary, appropriate specimens can usually be taken before embalming starts.

In reply to the question of Dr. Zwisohn, I would say that when finally buried, the Egyptian mummy usually lay on its back, as is the usual custom today. Many illustrations show, however, that before final burial mummies were often kept upright, and religious services were performed before them. Thus Sir E. A. Wallis Budge ("The Liturgy of Funerary Offerings," p. 49) says that the "tree" hieroglyphic (symbolizing the backbone) was often painted on the bottom of the coffins, so that when lying down the mummy rested on this "tree," and when standing up was supported by it. I can't say what led Clemenceau to request that he be buried standing up.

Although *some* of the body cells are continually dying and being replaced, the fact remains that after the death of the body as a whole, many of the individual cells survive for some time. Under proper conditions, they, or their descendants, might live indefinitely, as is shown by the chicken heart fragment which Dr. Alexis Carrel has kept alive now for about seventeen years. 50 East 41st Street.

The War Department Attacks Cancer in Women

The Surgeon-General of the War Department has recently issued Circular Number 25 on "Annual Physical Examination of Women" which has special reference to the prevention and early detection of cancer among the wives of officers and enlisted men of the army. The circular says, in part, that while the Medical Department has long been an advocate of the periodic physical examination as an effective measure in preventive medicine among officers and enlisted men, less attention has been given to the detection and prevention of chronic diseases and the degenerative conditions among the adult women connected with the Army. "The periodic physical examination of the wives of officers and enlisted men offers the best hope for the detection of these conditions at a stage in which they are amenable to cure or amelioration." Cancer as a health problem in this country is assuming an ever-increasing importance and while the educational campaign directed against this disease is unquestionably producing results, cancer still appears to be on the increase, particularly as regards the female reproductive organs, more especially the cervix. The Medical Department therefore urges that all medical officers give earnest consideration to the question of annual examination among adult women living at or connected with their stations, and that "stress should be laid on the desirability of an annual pelvic examination among women under 40 who have borne children, and examination every six months for those over 40. The hopeful aspect of the cancer situation when early diagnosis is made should be emphasized."

The Society is cooperating with the War Department by contributing a supply of literature and posters for the various army posts.

Schizophrenia (Dementia Praecox)

(*Concluded from page 240*)

them there is a high incidence of pituitary deficiency. Gonads give very little help in schizophrenia. Parathyroid does not help catatonic rigidity, nor does it secure an increase of blood calcium. There is no evidence at present to show that the disorder of any one gland is a definite causative factor in schizophrenia. And of course, polyglandular therapy is purely speculative. With our present knowledge, the most one can say is that endocrines combined with suitable psychotherapy may help in some cases.

All sorts of medical and surgical treatments have been employed in schizophrenia. Nearly all of the following procedures used alone are of no value; and some of them must be regarded as unscientific and experimental, if not absurd, if used to "cure" schizophrenia. Among the medical recommendations have been the production of partial narcosis by large doses of bromides or luminal; the use of cocain; also of metal salts; the production of an artificial leucocytosis; the production of fever by tuberculin, thyroid, or malarial plasmodia (certainly useless in chronic cases); injection of horse serum, or of the patient's own blood; the use of massage, spinal douches, high frequency current, diathermy. Along surgical lines the following have been practiced, usually without results: gonadal transplantation, thyroidectomy, vasectomy, removal of foci of infection; lumbar puncture with cerebrospinal drainage; intraspinal injection of horse serum, to produce an aseptic meningitis (certainly useless in chronic cases, and probably not to be recommended in any cases). Those investigators who have produced prolonged narcosis, for as long as 50 days or more, admit that it is rarely ever helpful in paranoid patients. And while on this subject, I might mention that small doses of sedatives often make these patients worse. This is not due to any idiosyncrasy toward the drug which these patients possess, but because the drug, by partially stupefying them, only removes them further away from reality, and in this way may even cause confusion. In milder instances it may interfere with their already poor adaptability to their surroundings. This usually means that if a sedative is needed for such types of patients, a larger dose must be given, or none at all; i.e., some other measure must be employed.

Needless to say, most of the procedures just mentioned should not be used in treating schizophrenics. They are mentioned for purposes of review only. The greater part of one's treatment must be along psychogenic lines; and only to a limited degree has it to be directed to toxic or constitutional disorders.

In closing, I merely want to emphasize that a cumulative loss of interest with indifference toward an individual's family and social responsibilities must lead us to suspect schizophrenia. For the disorder may be present with no accessory symptoms (such as delusions and hallucinations) being in evidence. And early, constant treatment will give the most satisfying results.

REFERENCES

1. Hinsie—Treatment of Schizophrenia; Williams and Wilkins Co., Baltimore, 1930.
2. Kretschmer—Zeitschr. für d. ges. Neurol. u. Psychiat.; Vol. 121, 1929.
3. Meagher—Dementia in Mental Disease; Medical Times, Dec., 1929.
4. Meagher—Senile Psychoses; Dementia; Medico-Legal Journal, Jan., 1931.
5. Schilder—Introduction to a Psychoanalytic Psychiatry; Nerv. and Mental Dis. Pub. Co., Washington, D. C., 1928.

458 Clinton Avenue.

Contemporary Progress

Editorial Sponsors

MALFORD W. THEWLIS, New York, N. Y. .....*Medicine*
AIMÉ PAUL HEINECK, Chicago, Illinois .....*Surgery*
OLIVER L. STRINGFIELD, Stamford, Connecticut .....*Pediatrics*
VICTOR COX PEDERSEN, New York, N. Y. .....*Urology*
HARVEY B. MATTHEWS, Brooklyn, N. Y. *Obstetrics—Gynecology*
HAROLD HAYS, New York, N. Y. ....*Nose and Throat—Otology*
WALTER CLARKE, New York, N. Y. .....*Public Health, including Industrial Medicine and Social Hygiene*
CHARLES R. BROOKE, New York .....*Physical Therapy*
WALTER B. WEIDLER, New York .....*Ophthalmology*
HAROLD R. MERWARTH, Brooklyn, N. Y. .....*Neurology*

Medicine

Lesions of Latent Syphilis

A. S. Warthin of the University of Michigan (*Southern Medical Journal,* 24:273, April, 1931) states that he has never seen an absolutely inactive instance of syphilitic infection; pathological examination will show active latent lesions in some organ or tissue of the body. This, he says, is as true with the modern treatment of syphilis as formerly. These active latent lesions are characterized by perivascular infiltrations and proliferations, consisting essentially of lymphoid and plasma cells, simulating the pathology of the primary lesion; spirochetes are demonstrated in a large percentage of these lesions. In a series of 386 autopsies on adults over twenty-five years of age at the University of Michigan Hospital in 1909-1919, the author found such lesions of latent syphilis in 43.7 per cent.; in a similar series of 1,280 autopsies in 1919 to 1929, latent syphilis in 25.7 per cent. These syphilitic lesions were found most frequently in the meninges, the brain, the aorta, the heart, liver, pancreas, adrenals and testes. The incidence of syphilitic lesions in the meninges, brain, heart and aorta was lower in the female than in the male; but females showed the highest incidence of lesions in the liver, adrenals and pancreas. While typical lesions were found in the testes in almost every case of latent syphilis in males, the author states that he never found such a lesion in the ovary. These latent lesions are in some instances the cause of symptoms not usually recognized as syphilitic and may be the cause of death, especially the cardiac lesions.

The Newest Arsphenamine Synthetic—Bismarsen

J. H. Stokes, T. H. Miller and H. Beerman (*Archives of Dermatology and Syphilology,* 23:624, April, 1931) report the use of bismarsen—bismuth arsphenamine sulphate—in 341 cases of syphilis in five years. The drug is given intramuscularly, making it particularly valuable where intravenous therapy is difficult or contra-indicated; it is given in a solution containing butyn as a local anesthetic. Logically it should be an effective drug, as it combines "a spirillicide and a defense builder." Local reactions occurred in 2 per cent. of injections, but could be avoided or controlled by careful technique, prolonged massage and the application of heat. Systemic reactions occurred following 0.5 per cent. of injections or in 11 per cent. of all patients; but in many patients showing reactions to other arsphenamines the drug proved a valuable substitute. The drug was most effective in early syphilis; its effect on the Wassermann reaction was "excellent and lasting;" the proportion of relapses was only 12 per cent. The best results were obtained if treatment was given continuously, two injections per week, up to forty injections. The drug also gave good results in cardiovascular syphilis; and in cases with resistant positive Wassermann reactions, which were rendered negative in 40 to 50 per cent. It was effective clinically and serologically in some forms of neurosyphilis, but had little influence in paresis. Its chief advantages are the relative simplicity of administration, the comparatively low toxicity, and low percentage of relapses "in the most significant phases of the disease."

Bacteriophagy

In two recent addresses, F. d'Herelle (*Canadian Medical Association Journal,* 24:619, May, 1931; and *The Bulletin of The New York Academy of Medicine,* 7:329, May, 1931) has summarized his experimental and clinical work on bacteriophage. "The phenomenon of bacteriophagy consists essentially," he says, "in a dissolution of bacteria under the influence of a principle which reproduces, the latter phenomenon, that is, reproduction, being directly related to the bacteria which are dissolved." Bacteriophagy is a general phenomenon, and races of bacteriophage have been isolated and cultured that can bring about the dissolution of many varied species of bacteria. Different strains of bacteriophage vary in their characteristics; some destroy many species of bacteria; others are specific or nearly so in their action. While the intestinal tract of every normal individual contains bacteriophage, which, in the presence of infection, becomes adapted for the destruction of the invading bacteria, this process can be hastened, and the bacteriophage action made more effective by the therapeutic administration of bacteriophage isolated and adapted *in vitro* to the destruction of the organism causing the disease. Dysentery, cholera, typhoid fever, infectious diarrhea of infants, plague, and staphylococcus and streptococcus septicemia have all been successfully treated by the administration of bacteriophage. Bacteriophage has no harmful effect on the tissues; it can be given by mouth, by subcutaneous, intramuscular or intravenous injections, or by injection into localized lesions—such as abscesses. The bacteriophage used must be proved to be potent against the infecting organism; recently isolated bacteriophage should be used; and it should be given by that route that will bring it most quickly into contact with the infecting organism in each case. Fairly large doses should be given—5 to 10 c.c.—and such doses may be repeated by subcutaneous or intramuscular injection.

Emetin

As the result of extensive studies on emetin in special relation to the treatment of amebiasis at the University of California, A. C. Reed (*American Journal of Medical Sciences,* 181:553, April, 1931) emphasizes the fact that emetin is a powerful and a dangerous drug that must be used with caution. Emetin poisoning manifests itself in the gastro-intestinal system, the nervous system and the circulatory system. It is noted that emetin in too large or too long continued doses may cause diarrhea, which, in the treatment of amebiasis, it is most important to distinguish from the amebic dysentery. Emetin poisoning frequently presents a picture of edema, peripheral neuritis, weak heart and low temperature and blood pres-

sure closely resembling one form of beri-beri. The total dosage of emetin in one course of treatment must not exceed 10 mg. per kilo of body weight. The plan of treatment for amebiasis worked out at the University of California includes: A course of hypodermic injections of emetin hydrochlorid, the total dosage usually 9 grains, and not exceeding the limit stated above, followed by a course of acetarsone (stovarsol) tablets by mouth; then by chiniofen (yatren) given both by mouth and by rectal irrigation; after a week on an iron, strychnine and quinine tonic, bismuthous emetin iodid in enteric coated tablets is given to a total of twenty tablets followed by a second series of emetin hydrochlorid injections; the total amount of emetin in this last course including that contained in the bismuth emetin iodide does not exceed 7 grains. Two adjuvant methods are sometimes employed—colonic irrigations and autogenous vaccines, the latter in cases with secondary bacterial infection.

Fluorescein in the Treatment of Cancer

S. M. Copeman (*British Medical Journal*, 1:658, April 18, 1931) reports further results with the treatment of cancer by fluorescein and irradiation. This method of treatment was first described in 1928 and again in August, 1929. It consists in the local application of a slightly alkaline solution of the sodium salt of fluorescein to the growth, combined in most instances with the internal administration of fluorescein; and irradiation of the tumor with radium or *x*-rays of moderate penetration. The fluorescein may be given by mouth in doses of 15 grains or 1 gram, or intravenously in amounts of 20 c.c. of a 5 per cent. solution. This method of treatment has been used chiefly in cases of cancer of the breast and also for other comparatively superficial malignant growths including rodent ulcer. Most of the cases have been inoperable; only 3 cases of cancer of the breast considered to be operable have been treated by this method; in all the growth disappeared entirely and there has been no recurrence for periods up to more than three years. Good results have also been obtained in cases considered inoperable and in those that did not respond favorably to irradiation alone.

Radon in Chronic Arthritis

Rathery and Monnery (*Bulletin de l'Académie de médicine*, 105:624, April 14, 1931) report the treatment of arthritis by radon (radium emanation) given by mouth. The dosage was 150 to 300 millimicrocuries daily, beginning with the smaller amount and gradually increasing. The cases treated represented various types of subacute and chronic arthritis, including the gouty type and arthritis deformans. No other treatment was given, but a fixed diet was prescribed, with a restriction of purine-containing foods. Treatment was continued for a month. It was found that in the great majority of cases the treatment caused an increase in the total urinary excretion and in the excretion of purines and uric acid; also a diminution in the blood uric acid. Clinically the treatment relieved pain, diminished the articular swelling and increased motility; and improved the patient's general condition. The relief of pain was the most immediate and most striking result. Of 25 cases treated all but 2 cases showed some definite improvement.

Surgery

Postoperative Thrombosis and Embolism

W. F. Bancroft (*Bulletin New York Academy of Medicine*, 7:110, February, 1931) in an address on operative risks from infection, gave special attention to recent work at the Fifth Avenue Hospital, New York City, on the prevention and treatment of postoperative thrombosis and embolism. It is generally accepted that trauma, infection, slowing of the blood stream and increased dehydration of the blood are factors in producing thrombosis; nevertheless it has been found that thrombosis does not always develop in cases in which a maximum number of these factors are present, but may develop in cases with a minimum number of these factors present. Studies at the Fifth Avenue Hospital have shown that another important factor in the production of thrombosis and thrombophlebitis is the blood-clotting factor. On this account a method of determining the "blood-clotting index" has been devised; in this index the prothrombin and fibrinogen are the numerators and the antithrombin the denominator; the normal index 0.5 ± 0.2. An index of 0.9 or more is considered to indicate a definite increase in clotting tendency. Blood examination and determination of the clotting index are made prior to operation and three and five days or five and nine days after operation. On the basis of these studies two types of postoperative thrombosis have been distinguished: 1. Type *a*, with thrombosis the predominant factor with swelling of the leg and definite venous obstruction but slight elevation of temperature. 2. Type *b*, with thrombophlebitis predominant with high fever, infection and sometimes bacteriemia. Cases of type *a* are treated with sodium thiosulphate to reduce the clotting index; 10 c.c. of a 10 per cent. solution are given and the dose repeated in twenty-four hours. In 9 cases with high postoperative clotting index treated prophylactically with sodium thiosulphate the index dropped in all but one case (with normal prothrombin and high fibrinogen) and none developed thrombosis. In six cases with thrombosis treated by this method, recovery was rapid. In type *b* (the septic type of thrombophlebitis) intravenous injection of gentian violet, usually in doses of 50 c.c. of a 0.5 per cent. solution repeated two or three times on alternate days, has given excellent results. No death from embolism has occurred.

G. Picot (*Bulletin et mémoires de la Société nationale de chirurgie*, 57:281, February 28, 1931) also notes the importance of the blood coagulation in relation to postoperative thrombosis and embolism. He makes it a practice to determine the coagulation time both before and after operation; to operate, as far as possible, only when the coagulation time is normal; and to keep the coagulation time at the normal level during the postoperative period. He has found that an abnormally rapid coagulation predisposes to thrombosis and phlebitis with possibly a secondary embolism; but that an abnormally delayed coagulation predisposes to embolism without any apparent phlebitis, which is not infrequently fatal in patients apparently well on the road to recovery. In regulating the coagulation time, he uses calcium chloride and pectine to correct retardation of coagulation, and sodium citrate to lengthen the coagulation time. As a rule three or four days' treatment are necessary to bring the coagulation time to normal. In 770 cases operated there were 3 cases of embolism without phlebitis, all associated with delayed coagulation; and no cases of phlebitis. Several of the patients in this series had previously had phlebitis and showed a definitely shortened coagulation time pre-operatively, which was brought to normal before the operation was done.

Local Anesthesia in Fractures

C. O. Rice, of the University of Minnesota (*Surgery Gynecology and Obstetrics*, 52:887, April, 1931), reports the use of local infiltration anesthesia for the reduction of fractures of the extremities; this method is contra-

indicated in the presence of infection or a compound fracture. A 1 per cent. solution of procaine hydrochloride with 4 drops of adrenalin per ounce is used. Through an initial subcutaneous wheal made with a hypodermic needle, a longer fine gauge needle is directed into the fracture gap. Infiltration of the tissues is made slowly ahead of the needle, and when the fracture gap is entered the necessary amount of procaine is injected for complete infiltration of the injured tissues; from 10 to 60 c.c. may be required. The position of the needle in the fracture gap is determined by the ability to aspirate a cloudy bloody fluid. With this method good muscular relaxation is obtained and the reduction rendered painless; better alignment can be obtained, as reduction can be made under fluoroscopic control, and repeated adjustments made without causing pain. The author has used this method in intracapsular fractures of the hip with good results.

J. P. Hosford (*British Journal of Surgery*, 18:546, April, 1931) also reports the use of local anesthesia in fractures at St. Bartholomew's Hospital, London, England, by injecting the anesthetic directly into the hematoma at the site of the fracture between the bone fragments. Novocain in a 2 per cent. solution is employed; and the exact site for injection determined by the *x*-ray. As a rule from 20 to 50 c.c. is used depending on the site and extent of the fracture; in one patient with multiple fractures as much as 144 c.c. was given without ill effect. Local anesthesia has been employed for reduction by skeletal traction either with calipers or a pin, as well as for reduction by manipulation. Local anesthesia secures good muscular relaxation, freedom from pain, and the co-operation of the patient. Under *x*-ray control, readjustments can be made if good alignment is not obtained at first. It is contra-indicated in compound fractures; in such cases brachial plexus block anesthesia for the upper extremity and spinal anesthesia for the lower extremity may be used, if general anesthesia is not indicated. The results in fractures reduced under local anesthesia at St. Bartholomew's have been excellent in obtaining good position and function.

Thyroidectomy Failures

J. Rogers (*Annals of Surgery*, 93:1031, May, 1931) concludes from his study of hyperthyroidism and cases in which thyroidectomy failed to cure the patient, that hyperthyroidism probably represents an attempt at compensation that "goes wrong." When the thyroid gland functions inefficiently either from lack of iodine or lack of vital capacity to metabolize it, hypertrophy and proliferation of the epithelium results, which becoming excessive, causes hyperthyroidism. In cases in which the hypertrophy is slight, there is an additional unknown factor of "weakness" or dysfunction of the thyroid. In such cases, the author believes, subtotal thyroidectomy is not indicated, but reduction of the blood supply of the gland. The purpose of operation in hyperthyroidism is to reduce the amount of secretion and to check the autoactivation of the gland. After operation the normal function of the unexcised portion must be maintained, otherwise symptoms may recur due to dysfunction, if not to hyperfunction. The author has found that this is best done by gentle manipulation of the thyroid immediately after operation and subsequently by the administration of a small amount of iodine; small doses of thyroid (if the pulse rate is normal); and adrenal substance (not adrenalin), which the author has found aids the metabolism of iodine. Both the thyroid and the adrenal substance are given in the form of glycerine extracts.

The Welch Bacillus in Appendicitis

J. E. Jennings (*Annals of Surgery*, 93:828, April, 1931) reports that in a bacteriological study in cases of appendicitis, the Welch bacillus was found in the lumen of the appendix in 90 per cent. of cases, in the wall of an inflamed but not perforated appendix in 7 cases; in localized pus collections with gangrene in 16 cases; and in the free fluid in the peritoneal cavity in 10 out of 40 cases. At the Brooklyn Hospital, Brooklyn, N. Y., 50 cases of appendicitis in which gangrenous changes with or without peritonitis were found at operation, Welch bacillus antitoxin was given postoperatively in a 1 : 10 solution in normal saline by hypodermoclysis; in 25 of these cases with generalized peritonitis, there were 6 deaths, a mortality rate of 24 per cent. In a previous series of gangrenous appendix and generalized peritonitis cases in which antitoxin was not used, the death-rate was 35 per cent. The author is of the opinion that Welch bacillus antitoxin should be used in all cases of gangrenous appendicitis, especially with peritoneal involvement.

Bacteriophage in Surgical Infection

Barthélemy and Rogue (*Bulletin et mémoires de la Société nationale de chirurgie*, 57:437, March 28, 1931) report the treatment of surgical infections of various types, including wound infections, abscess and carbuncle, by the injection of bacteriophage into the site of infection; in some instances the dressings also were moistened with bacteriophage; and in one case (carbuncle) subcutaneous injections of bacteriophage were given. In all cases the treatment resulted in rapid healing of the lesion. In these cases no bacteriological examination was made but a bacteriophage active against pyogenic organisms was used.

Urology

Intravenous Urography

R. H. Herbst (*Journal of Urology*, 25:287, March, 1931), in comparing intravenous urography (using uroselectan) with cystoscopic pyelography, notes that the simplicity of the intravenous method for the patient and the technique is "certain to popularize roentgenographic study of the urinary tract and thereby help to uncover more cases of urinary tract pathology and anomalies." The intravenous method is of special value where cystoscopic pyelography is impossible, difficult, or dangerous, on account of obstruction or infection; also in children with whom cystoscopy presents many difficulties; in the diagnosis and study of upper urinary tract obstruction, ureteral stricture and spasm, movable kidney, and the functional activity of the urinary tract. It aids in eliminating mistakes in interpretation of pyelograms due to changes and artefacts produced by overdistention or underdistention and presence of a hypertonic solution of sodium iodide. The intravenous method also gives a bilateral visualization without the dangers of bilateral pyelography of the cystoscopic method. In some cases the intravenous method is not satisfactory—especially in tumor of the kidney, polycystic kidney, and early renal tuberculosis.

H. C. Ochsner and W. N. Wishard (*American Journal of Roentgenology*, 25:314, March, 1931) report the use of skiodan (German abrodil) for intravenous pyelography. Skiodan is a stable organic compound of iodine, the sodium salt of iodomethane sulphonic acid. The amount used is 20 grams in 100 c.c. of double distilled water, injected as rapidly as possible. The first film is taken five minutes, and the second fifteen minutes after injection; the authors have found that later exposures do not assist diagnosis. If there is no obstruc-

tion, the shadow is never so dense as with cystoscopic pyelography; if obstruction is present, it may be superior to the latter. The authors have found that skiodan gives a denser shadow than any other compound used intravenously and causes no unpleasant reactions. No intravenous method is a substitute for cystoscopic pyelography in all cases, but is especially indicated in cases of obstruction and when ureteral catheterization is difficult or impossible.

COMMENT

There is no doubt whatever that intravenous pyelography has come to stay and improve. Finally a substance will be found superior to all others just as sodium iodid was developed as practically nonirritant to the urinary mucosa.

New Incisions for Operations on the Bladder

O. S. Lowsley (*American Journal of Surgery*, 11:305, February, 1931) describes an incision recently used in operations on the bladder: an inverted V, with the apex well above the dome of the distended bladder, ordinarily about three-fourths of the distance between the symphysis pubis and the umbilicus. The incision is deepened through the skin and subcutaneous tissue; the sheath of the recti on each side is incised, and if the recti are firm and strong they are cut across either partially or entirely as necessary; when the urachus is encountered the dissection is carried along this structure until the highest point of the bladder is reached; the peritoneum is separated from the bladder by careful blunt dissection without approaching the space of Retzius. In 45 consecutive cases, 30 were for suprapubic cystotomy preliminary to prostatectomy; 10 for resection of vesical tumor; 2 for removal of large vesical calculi; 2 for plastic operation on the lower ureter; and one for vesical diverticulum. In 34 cases the Kenyon double suction tube was used for drainage; gravity drainage in 9 cases; and urethral catheter drainage in 2 cases. The suprapubic wound healed by primary intention in 39 cases; in 5 cases there was a transient infection, lasting a few days only, and in one case, infection lasting ten days; in no case was there pelvic cellulitis. The advantages of this incision, are: an excellent exposure of the bladder for extensive resections and operations on the lower ends of the ureters, and drainage with the tube in the apex of the bladder, high in the skin wound, and oblique in the abdominal wall, favoring rapid healing of the fistula. In case a secondary operation is to be done the incision may extend from the fistulous tract to the symphysis through "virgin tissue" without injury to the peritoneum. The space of Retzius is not opened and hence the danger of pelvic cellulitis is eliminated.

The Electrosurgical Scalpel in Renal Surgery

W. W. Scott (*New York State Journal of Medicine*, 31:394, April 1, 1931) reports the use of the electrosurgical scalpel in certain kidney operations, chiefly for the removal of calculi, and in one resection of the lower pole of the kidney. The machine used was a spark-gap generator developing a current of cutting and coagulating properties. The author has found that this electrosurgical method greatly decreases and often entirely controls bleeding. Clamping of the vascular pedicle is often not necessary. In the 5 illustrative cases reported, it was done only in one case (resection of the lower pole). Fewer sutures are necessary on account of the diminished bleeding and there is less loss of renal function: a particular advantage in a single remaining low-function kidney where the conservation of functional renal parenchyma is of prime importance.

Renal Function Tests

T. Hunt (*British Journal of Urology*, 3:26, March, 1931) notes that the diluting power of the kidney is important in determining renal function, and for this Volhard's water test is well suited. The estimation of the volume and specific gravity of the urine which are required for this test can be easily done by all practitioners. It may be combined with the urea concentration test. For this, the patient is given his usual diet, but a minimum of fluid from noon until 9 P. M. when 15 grams of urea in 4 ounces of water are given. Urine is passed at 10 P. M. and discarded. Any urine passed during the night is saved and added to the urine passed at 7 A. M.—which constitutes the night specimen A. Then 1½ pints of water or weak tea are taken, but no food, and urine is passed hourly for four hours, 8, 9, 10 and 11 A. M., constituting specimens B, C, D and E. The volume and specific gravity of each specimen and the total output of urine are determined. With normal renal function the volume of the night specimen A is small, 12 ounces or less and its specific gravity high, 1,024 or above. Of the pint and a half of fluid given, between 25 and 35 ounces should be excreted in the four hours, the largest quantity in the second hour's specimen (C); the specific gravity in this specimen should fall to 1,003 or lower. Slight and moderate renal impairment is shown by an increase in the volume and a decrease in specific gravity of the night specimen; and a urinary output in the first four hours after the test dose greater than 35 ounces. With more severe renal defect a diminished secretion occurs, less than 25 ounces in four hours with some diminution in the range in the specific gravity of the night specimen and the range between the maximum and minimum specific gravity. The most severe renal impairment is shown by a diminution in the four hour output, below 15 ounces, and by a fall in the volume as well as the specific gravity of the night specimen (A), with a marked reduction in the specific gravity range. For the urea concentration test, the urea is determined for the night specimen and for the morning specimen showing the highest volume and the lowest specific gravity. The water test is of special value in cases of high blood pressure and early contracted kidney when the urea concentration may be normal; but in other conditions it offers "valuable additional evidence of renal function."

COMMENT

No one test or two tests of so profound a function as the renal can be relied on. This procedure is rather fundamentally like the polyuria test of thirty years ago, as to which much accuracy was claimed until contradictory findings appeared, by which the better kidney temporarily declined the work of extra fluid to excrete. Such a result is to be expected at least in tune with this test also. The administration of urea or other normal elements of the blood and urine should always be controlled by blood-chemistry, especially when the excretion of the element in the test is not satisfactory. Too much caution is impossible.

G. von Pannewitz (*Zeitschrift für urologische Chirurgie*, 32:45, April 30, 1931) states that he has found the variations in the reaction of the urine after the administration of acids and alkalies of great value in the study of renal function and as an indication of the site of the renal lesion. In glomerular lesions there is a failure of alkali excretion, the urine remaining acid in spite of the administration of alkalies in excess. In tubular lesions, there is a failure of acid excretion, the urine remaining neutral or alkaline in reaction in spite of the administration of acids in excess. Where both the glomeruli and the tubules are involved, the reaction of the urine remains fixed at about 6.8 pH, without variation

whether acids or alkalies are given. By determining the reaction of the urine from each kidney separately, he has found it possible to diagnose early unilateral lesions by this method, and especially early cases of renal tuberculosis. This acid-alkali test often indicates a beginning failure of renal function before the dye test indicates anything abnormal.

COMMENT

While very ingenious and interesting the limit of reaction is so narrow a margin in many patients as to raise the question as to reliability of the test. All urologists are familiar with neutral or alkaline urine on Saturdays produced by liberal sea-food diet on Fridays!

Pediatrics

New Methods in Infant Feeding

J. H. West (*Archives of Pediatrics,* 48:189, March, 1931) reports the use of unsweetened evaporated milk, so modified as to give a low fat, high starch and high protein food. In preparing the formula for beginning the treatment, 4 oz. of the evaporated milk were used to 28 oz. water, which reduces the fat; 1 oz. of calcium caseinate was added to increase the protein and caloric value, and 1½ oz. of baked wheat or barley flour to increase the carbohydrate; the caloric value is 382 calories per 32 ozs. The resulting mixture contains Fat, 1 per cent. Protein 3.8 per cent, Lactose 1.25 per cent; Starch 3 per cent. Marasmic infants who tolerate fats and sugars poorly take this mixture easily without digestive disturbances, so that a sufficient amount can be given to ensure 100 to 130 calories per pound body weight. As the infant thrives, fat is gradually increased by adding ½ oz. of milk and removing a similar amount of water; and ½ oz. of lactose, or dextri-maltose, may be substituted for the same amount of the flour. Of 152 marasmic infants, all gained on this formula; the average weekly gain for the entire period of treatment was 5 oz., and for the first four weeks of treatment 6½ oz. The resistance to infections on this diet was excellent; only 6 developed respiratory infection with an average duration of seven days. The infants became happy and contented with excellent tissue turgor, adequate subcutaneous fat, and soft, well-nourished skin.

S. V. Haas (*Archives of Pediatrics,* 48:248, April, 1931) notes that bananas have been found to be an excellent source of carbohydrates in infant feeding. On account of the difficulty of using the fresh fruit for bottle feeding, a method of reducing the ripe banana to powdered form has been perfected. This powder has a banana-like taste and odor and the same food value as the fresh banana. It contains a large percentage of invert sugar, vitamins A, B and C in adequate amounts, and an enzyme capable of hydrolyzing the starch of bananas and converting cane sugar to invert sugar; the caloric value is 116 calories per ounce. It is added to the feeding formula in amounts similar to those for other sugars (1 to 3 oz. per day's ration). It is well borne by infants even in the first few weeks of life; normal infants thrive well; in celiac disease and cases of carbohydrate indigestion, it is especially valuable. In cases of intoxication, it must be used with great care, as it may cause allergic symptoms. The banana powder, in the author's opinion, "should prove a welcome addition to the infant's dietary."

Prophylaxis of Rickets by Irradiated Milk

B. Essig (*Munchener medizinische Wochenschrift,* 78:273, February 13, 1931) reports that in the infant's home of the University of Tübingen, Germany, the effect of irradiated milk on the prevention of rickets was studied for a period of two years. In each year the milk was used throughout the winter months, when the incidence of rickets was normally highest. In the first year a definite percentage of irradiated milk was added to ordinary cow's milk. This had but little effect on the incidence of rickets. In the second year fully irradiated whole cow's milk was used. In this year, only a very few cases of rickets developed in the home throughout the winter, although the incidence of rickets in other children's institutions and clinics in Tübingen and vicinity was high. The author concludes that although irradiated milk cannot entirely prevent rickets, it has a very definite prophylactic value in markedly reducing the incidence of the disease.

Salicylic Acid Fruit in Rheumatism in Children

J. Epstein (*Archives of Pediatrics,* 48:73, February, 1931) reports the use of fruit containing salicylic acid in the prevention and treatment of rheumatism in children. Of 33 normal children, all on a well balanced diet, 20 were given salicylic acid fruits and none have developed any symptoms of rheumatism, while of the 13 controls, 6 have shown slight rheumatic symptoms. The group of rheumatic children were all put on a well-balanced diet, and every possible means taken to improve their general health. There were 29 with mild rheumatic symptoms, of whom 18 were given salicylic acid fruits in liberal amounts. After five years, these children are all well; the 11 controls in this group continue to show rheumatic symptoms. There were 47 children with more acute and severe rheumatic symptoms; of these 30 were given the salicylic fruits, with the result that 24 are clinically well at the end of five years and 6 have improved. In the control group of 17 cases, only 5 are well, 8 have not improved, and 4 have developed cardiac symptoms. All the 22 children in the cardio-rheumatic group were treated by rest, graded exercises, diet, and quinine and calcium salts given on alternate weeks for long periods; all showed improvement, but the 15 children who were given large amounts of salicylic acid fruits showed the most marked and most rapid improvement. The author concludes that fruits containing salicylic acid and other organic acids, the alkaline ash, and vitamins are of definite value in the prophylaxis and treatment of rheumatism and should be added to the diet of children beginning with the second year of life. These fruits include strawberries, huckleberries, raspberries, plums, cherries, lemons, grapefruit and melons, all containing antirheumatic drugs in an active natural state and in a form that can be given over long periods of time.

Iron and Copper in the Treatment of Anemia in Children

M. S. Lewis (*Journal of the American Medical Association,* 96:1135, April 4, 1931)reports the treatment of secondary anemia in children with iron and copper; the copper was added to the iron because recent experiments have shown that it plays an important part in hemoglobin formation. The iron was given in the form of saccharated ferrous carbonate in doses of 15 to 60 grains daily, the copper as copper sulphate, 0.5 per cent solution, from one to two teaspoonfuls three times a day. The 34 cases treated were observed for one to three months before treatment was begun, then the iron preparation alone was given from two to four weeks, and finally the copper added. In most cases there was some response to the iron therapy, as indicated by an increase in the red cells and hemoglobin, but this was slight, as a rule. The response to the combined iron and copper treatment was much more marked and rapid. All cases showed a defi-

(*Concluded on page 264*)

Medical Times

& LONG ISLAND MEDICAL JOURNAL (CONS.)

A Monthly Record of Medicine, Surgery and the Collateral Sciences

ESTABLISHED IN 1872

EDITED BY

ARTHUR C. JACOBSON, M. D.

MALFORD W. THEWLIS, M.D., *Associate Editor*
HARVEY B. MATTHEWS, M.D., *Associate Editor*
GEORGE J. BRANCATO, M.D., *Assistant Editor*

Editorial Representatives of the Associated Physicians of Long Island

ALEC N. THOMSON, M.D. WILLIAM H. ROSS, M.D.
ARTHUR C. MARTIN, M.D. JOSHUA M. VAN COTT, M.D.
CARL BOETTINGER, M.D.

Contributions.—EXCLUSIVE PUBLICATION: Articles are accepted for publication on condition that they are contributed solely to this publication and do not contain references to drugs, synthetic or otherwise, except under the following conditions: 1. The chemical and not the trade name must be used. 2. The substance must possess the approval of the Council on Pharmacy and Chemistry of the American Medical Association. When authors furnish drawings or photographs, the publishers will have half tones and line cuts made without expense to the writers.

SUBSCRIPTION RATES—(Strictly in Advance)

UNITED STATES AND POSSESSIONS	$2.00 per year
CANADA	$2.25 per year
FOREIGN COUNTRIES IN POSTAL UNION . .	$2.50 per year

SINGLE COPIES, 25 CENTS

Notify publisher promptly of change of address or if paper is not received regularly. Remittances for subscriptions will not be acknowledged but dating on the wrapper will be changed on the first issue possible after receipt of same. All communications should be addressed to and all checks made payable to the publishers.

MEDICAL TIMES COMPANY, INC.
ROMAINE PIERSON, *President*
ARTHUR C. JACOBSON, *Treasurer*
REGINALD E. DYER, *Director*

95 Nassau Street New York

Cable Address: Ropierson, New York

All Exchanges and Books for Review, Address: 1313 Bedford Avenue, Brooklyn, N. Y.

NEW YORK, JULY, 1931

The Cost of Medical Care

"This system concentrates two-thirds of the wealth and one-third of the income in the hands of approximately 10 *per cent of the people and provides for the other* 90 *per cent chiefly on the marvellous theory that enough will somehow trickle down from the top. When we ask the master minds why today more than* 6,000,000 *American children are suffering from malnutrition, or why more than* 6,000,000 *unemployed adults walk the streets with lean and hungry looks, the answer is that the reason for there not being enough to eat is that there is too much to eat! I submit that such a system is a veritable wonder of wonders."*—Corliss Lamont, Columbia University.

If "social justice" were something more than a phrase and an abstraction the doctor's economic problems would tend in large measure to vanish. Schemes which undertake social palliation through making a goat of the doctor are obviously evasive and vicious. If industrial exploitation were to be curbed and the profits of labor equitably distributed the legitimate rewards of the doctor and adequate medical care of all the sick and near sick would follow in due course. The trouble is that we are in the habit of thinking of the status quo as something sacred and in the habit of acting only along lines not rated as impious by old taboos. The doctor must learn to think boldly through social and economic issues as they relate to him and the sick if he is not to become a complete sacrifice to rank expediency. Only a society bent upon a static social order of low type would seek to exploit the medical profession, a thing which we must resist with all the power that is in us and the accredited leaders of organized medicine. When it comes to action the doctors *ought* to be key men.

The first fact to contemplate is our terrific over-concentration of wealth. The profits of utility companies alone increased last year by nearly $44,000,000. We shall undertake to show that the medical profession has a definite professional concern in such facts. We have a direct professional concern in the fact that from 5 to 10 per cent. of the school children of the country are undernourished (United States Bureau of Education) while 248,000,000 bushels of wheat are in storage and the wealth of the country was never so great. There are 38,650 millionaires. Over five hundred persons have annual incomes of more than $1,000,000 and thirty-six have incomes of more than $5,000,000 a year. Meanwhile the great majority of the American people live precariously on a scale perilously close to starvation and seven million are unemployed. We are awake to the fact that infant mortality is definitely related to the industrial exploitation of mothers because of economic pressure so severe that millions of married men cannot support their families according to a decent American standard of living. Labor lost $10,000,000,000 in income in 1930, as compared with 1929. These things have everything to do with the mental and physical health of the citizenry and the welfare of the medical profession. How can we succeed in our preclinical and therapeutic efforts while one corporation pays $31,000,000 in bonuses to privileged beneficiaries and $40,800,000 to common stockholders in a single year before thinking of the wage scale? What is the use of tinkering with deficiency diseases in overworked wretches and infections resulting from malnutrition in its many forms while another corporation revels in a $10,000,000 surplus after paying a full dividend and still another greedily piles up $43,000,000, whole armies of their employees meanwhile "subsisting" upon less than the minimum wage necessary for a fair standard of living? The bankers talk of wage cuts although sixty-two of the New York banks voted dividends of $143,000,000 in 1930, as compared with $123,000,000 in 1929.

No wonder the doctor is a target for the frauds who seek to socialize him in one guise or another so as to perpetuate economic feudalism, social expediency and a malodorous spoils system.

Only through a full development of social-mindedness can the doctor cope with attempted exploitation. It is only another phase of diagnosis. Society is sick and the quacks seek to infect the medical profession itself with the pestilential virus. In protecting itself and insisting upon sane measures the profession is discharging a high duty both to itself and the sick. With the increased suffering and sickness ahead of us we must be prepared not to be stampeded by any panic technique into deplorable compromise. Our leaders bear a heavy responsibility.

Medical fees now constitute only one-third of the cost of medical care. Let us maintain our professional prerogatives and point out persistently the real evils. It is social injustice for which we are in no wise responsible which has produced disgraceful conditions. Before we are further exploited let the money barons mend their ways—be made to mend them. Under decent conditions the people could pay for the cost of their medical care. It is the relations of capital and labor that must be revised before there is any tampering with the relations between the medical

profession and the sick. To what extent is the Committee on the Cost of Medical Care taking such fundamentals as this into account? To what extent is it preventing uplifters from making of the cost of medical care a fake issue?

The sincerity of our concern for the sick is being put to a test. How sincere are we? How able, forthright and clear thinking are our leaders?

Dare we face fundamentals? Dare we give notice that not for ever will we witlessly aid a capitalistic racket which immorally seeks, in part, through free medical service in clinics, hospitals, offices and homes, to continue the unlimited profits system and to rob the workers?

Their Minds Were Just as Good as Ours

What was once called "rational empiricism' gave a remarkably good account of itself in certain respects and in particular instances. One might say that much of the structure of the scientific medicine of to-day grew directly from this root. One remarkable instance of this empiricism was the recognition of the very great value in certain clinical circumstances of cod-liver oil. Then came a rather long interval when it became the fashion of the earlier representatives of the modern school to take a rather scornful view of this agent, and some of us, in our earlier years of practice, did not use it at all. What a different attitude is now dominant, and how well modern science has elucidated and rehabilitated the older practitioners' sheet anchor. The point is that those older practitioners were, in their own precious way, quite the equal of the most modern of physicians.

Another good instance of this equality was the older practitioners' understanding with respect to the tolerance of an individual infant for the milk from a particular cow, whereas other milks were quite beyond its powers of digestion. Here was doubtless individualization of the infant patient in superlative degree. To-day we have elucidated and rehabilitated soft curd milk, which was really what the older practitioners were selecting. Here again there followed a long period of scorn for old-fashioned nonsense, as this clinical perspicacity was thought to be.

Do we realize as fully as we should the older practitioners' equality with ourselves in intellectual acumen, making due allowance for the vast difference in available data? Our caption says that their minds were just as good as ours. We dare to suggest now that perhaps they were better.

Prenatal Care Versus Crime

Out of thirty-eight boy convicts studied in an English prison, as reported in a recent issue of the *Christian World*, thirteen had no parents, eight had mothers, and eleven, fathers; two had been deserted by their parents, and but four had living fathers and mothers. It seems fair to conclude that the tendency to crime is largely attributable to a lack of good home influence, the unprivileged boy who is morally weak tending to drift into prison.

The point for us is that thirty of these boys were without mothers. Assuming that this lack runs in the same degree through the mass of young criminals, and also assuming that lack of prenatal care plays a large part, directly and indirectly, in the death of young mothers, we have a good clue to a possibly big crime factor that is preventable. What better argument could there be for prenatal care? The subject should be studied statistically on a large scale in our prisons, which, God knows, are crammed with vast numbers of unfortunate specimens.

Reynold Webb Wilcox

In the passing of Professor Wilcox the Medical Times and Long Island Medical Journal loses one of its oldest friends and editorial collaborators. Medicine itself loses a great scholar, scientist, practitioner and personality. Few men in our profession attain the wide range of interests and activities which made up his life; merely to enumerate them would require many pages of this journal; besides, he was such an outstanding figure that much of what he did was known to his colleagues. His Materia Medica and Therapeutics, which ran into twelve editions, is in the libraries of all progressive physicians. In the Pantheon of American medicine Professor Wilcox holds high place.

Nudism

It seems to be generally agreed, by those who have studied or participated in the activities of European nudists, that one of the effects of such activities is to get the mind more or less completely off sex. A cold, lifeless apathy, even to the point of asexuality, has been observed in individuals once concerned a good deal with matters erotic but who, for reasons of health, have sought to live with similarly inclined fellows in the sunlit open. Frances and Mason Merrill, in their book "Among the Nudists" (Alfred A. Knopf, 1931), note this devastating effect upon the puritanical zest in sex.

Better foster the old sex hypocrisies for awhile longer, if one desires the kick that is lost by the nudists. How great a cunning motivates the puritan!

It is partial nudity that stimulates the sex urge; paradoxically, total nudity does not (Briffault, "Sin and Sex," Macaulay Company, 1931).

These considerations remind us of the point made, from an esthetic point of view, against nudity, since beautiful and vigorous physiques are exceptional. General nudity would indeed reveal an appalling range of visible pathology. The paradox here is that much of such pathology is itself traceable to the ill health consequent upon deprivation of the ultraviolet ration.

Chaos Even in Science

What with the quantum theory in physics playing havoc with our old cause-and-effect beliefs (how implicit they were!), and with Charles Fort vastly increasing our scepticism as to the finality of the results of the scientific method (everything that is, also isn't), one is led seriously to wonder what the outcome will be as regards medicine.

But we forget. Science has dispensed with causality and here we are talking about an outcome!

The "Weak, Independent Medical School in Brooklyn"

Flexner sees in the Long Island College of Medicine an impious defiance of the principles laid down by him with respect to university medical schools. There shouldn't be any other kind, according to this pontifical pundit, and the abolishment of the independent school is the messianic, fanatical task of the standardizing uplifter, no matter what its type.

What is the independent spirit animating such a naughty school as the Long Island College of Medicine that minds of the rigid Flexner type cannot understand? It seems to us that such a school will con-

tinue to command unstinted approval and support, despite the obscene objections of a thousand Flexners, so long as the spirit animating it, so incomprehensible to its critics, is that expressed in a recent address of Professor Polak, of this wicked school's faculty. Read it and choose between the two exponents of conflicting ideas—ideas in science and teaching akin in intellectual values to those of fundamentalism and liberalism in religion:

Going to college and studying medicine is not one of the inherent rights of man. We believe the country needs quality rather than quantity in medical education, which is a never-ending process mellowed by years of experience.

As it stands today the situation is rather a complicated one. The desire to attain degrees and professional license is the ambition of thousands who wish to use these for their economic benefit. Medicine has always been classed as one of the learned professions, but it is being reduced to a business and science in which the art is lost. While the requirements for admission to medical schools have been raised but few of the men who present themselves as candidates with all of the scholastic requirements, namely, at least three years of medical training or a college degree, have any wide knowledge of what education really means and no conception of what is expected of the physician.

There is something lacking in the candidate of today. He has specialized even in his pre-medical preparation and the colleges have helped him to do so. In place of the man with a broad cultural learning, we have a technical student who works for his points to pass but knows little or nothing about literature, history or English. He may have heard of Gibbons, Shakespeare or Shelley or even of Tiberius, but he probably never read about them and what they contributed to the world's betterment, and he carries this same attitude into his medical studies.

Our educators today need a better understanding of the human problems in order to develop men for intellectual leadership. *The tendency to specialization defeats broad education.* The student, like his teacher, is boxed up in his own particular line and does not have sufficient outside contacts—but what can one expect with full-time clinical professors who have never practiced outside of the hospital or the laboratory—how can they give their student an idea of his responsibilities when they themselves have none to the public?

Again the tendency is to waste time on the unessentials. The big problems are not considered. Unless there is some change in the general plan of medical education, as I see it, we will in the course of a few years have no one graduated who is competent to go out into the country and practice intelligent medicine. It is said that the subject is so broad and the discoveries are so numerous, that no one man is capable of becoming proficient in the several branches of clinical medicine—hence men who have inclinations along special lines should be "spoon-fed" and encouraged to do research work along these lines. You can not make a research worker, he is born.

History will always repeat itself. The greatest of the epoch-making discoveries have not been made by men working in luxurious environment with costly equipment, they have been made by men who have had sufficient courage of their convictions to overcome obstacles and make the best of circumstance.

It did not take a university to make a Lincoln, Lister, Pasteur, Koch, Semmelweis and Crawford—all produced their great discoveries under disadvantages, but they were observers, thinkers and persisted in their purpose. The great Osler, who is credited with the development of American clinical medicine, like the elder Janeway, received this knowledge in the necropsy room by associating his symptomatology with his gross pathology.

Unfortunately, the clinical teacher often lacks that rare quality of imparting to his students the fundamental facts and becomes lost in detail. Likewise, many fail to inspire.

One of the most interesting and stimulating experiences of my life was to have the opportunity for a short period to attend Osler's clinics. They were conducted in a small room adjacent to the medical dispensary, and three times a week, without selection, two or three ambulatory patients were brought in to be the subjects of this observation clinic.

Osler's dictum was "don't touch but look and see what you may learn"—then he would proceed after taking a brief history of the patient's complaint, to ask each of us to record what we had observed, correlate our findings and make a suggestion as to the possible condition. He then assigned each one to look up the subject we thought might be the diagnosis, and report next day. After we made these reports, he summarized what we found and the diagnosis was complete.

He taught us to observe—he taught us to read—he taught us to think.

Four-Plus or Negative?

We have a new test for "true Americanism," in the language of a distinguished psychiatrist. It is whether or not one fears to discuss the great figures of our history as possible schizoid and manic personalities. One's patriotism may be suspect even if one shows any interest in the first President's artificial denture.

The notion that inquiry into the genesis of wit as a function of split and manic-depressive personality may be "blasphemous," if the subject of study be, say, a Lincoln, suggests, if it suggests anything, that there is something inherently disgraceful about states that depart from the Babbitt norm. Is not this a point of view utterly repudiated by the modern exponents of mental hygiene? Have we not been insistently taught by outstanding representatives of psychiatry that one must think of psychotic and even insane states much as one thinks of physical ailments? Ought not psychiatrists to be the last persons in the world to foster the old connotations in this field? All of which is entirely apart from the curious and almost incredible intellectual intolerance, in this age, involved in protests against, and attempted suppression of, free discussion by competent persons in the sole interest of truth and progress, in the world of science.

Miscellany

Rules For Maintaining the Present High Incidence of Cancer of the Cervix

Cancer of the cervix is known to result from chronic irritation. If, then, we were consciously to strive to hold the incidence of this disease at its present level, what rules might we lay down and seek to apply on the largest possible scale? We venture modestly to suggest the ones following as promising reasonable effectiveness:

1. Lacerations and infections must not be permitted to lessen in frequency and potentiality for harm; every effort must be made to produce the requisite incidence of unrepaired lacerations and nothing should be done to weaken the toll of the infections leading to inflammatory irritation.
2. Present contraceptive techniques must be fostered and encouraged at all hazards, since they are peculiarly efficacious in this field of effort, if there is any truth in the premises and preachments of those trying to prevent cancer.
3. The efforts of the various organizations aiming to change Federal and State laws, so as to authorize the dissemination of contraceptive literature and apparatus, should be heartily encouraged.
4. Efforts on the part of the American Society for the Control of Cancer to spread the truth regarding the rôle of irritation in the causation of cancer should be sedulously discounted and resisted.
5. The use of douches carrying various irritating chemicals is to be highly commended and their frequent employment insisted upon. The use of cold water is to be encouraged, because of the congestion of the pelvic organs caused by it.
6. Condoms smeared with some irritating contraceptive jelly are efficacious. The pronounced diminution of sensation when a condom is employed favors prolongation of coitus, the cervical irritation induced by the jelly being thus enhanced. The chronic posterior urethral congestion induced by unduly prolonged intercourse favors venereal excess with so much more contraceptive damage.
7. The various caps, especially if they carry an irritating jelly, which appears to be a growing custom, aid in cervical insult.
8. Caps of silver and aluminum alloys and of celluloid are very good traumatizers. When worn continuously between menstruations they gain greatly in efficacy as mechanical irritants, which is true in a lesser degree of the rubber devices as well.

9. The diaphragm pessary deserves special commendation in this connection, since it is anointed with an irritating jelly and left in until the next morning.
10. The intracervical stem pessaries, especially if worn between periods, are sterling irritants, and also directly favor infections.
11. The long-stemmed type of intrauterine pessary with arms extending out in V-shape from the cervical stem, particularly when left in situ for months at a time, provides a high degree of irritation and leads to numerous infections.
12. Suppositories, effervescent tablets and powders impregnated with various irritating chemicals are valuable because of their concentration, which heightens the degree of local irritation, and at the same time that they kill the sperms they damage delicate epithelial structures coming under their direct influence. The jellies also possess this effect upon epithelial surfaces.
13. The injection of tincture of iodine into the uterine cavity immediately after each menstruation furnishes a very good type of chemical irritation and its habitual application should be efficacious in those predisposed to cancer.
14. Research looking to the perfection of a rational biological method of birth control, for legitimate medical indications, should be discouraged, since abandonment of the present barbaric methods would surely be followed by a lessened incidence of cervical cancer.
15. The methods recommended in these rules depend for full efficacy upon frequent application; it is their habitual employment which brings the most brilliant results; they can be depended upon to be effective in the average case, and conscientious application of them will be highly rewarded; each effort in itself may seem slight but drops of water wear away stone. The intensive combination of methods recommended by many contraceptionists, used weekly or biweekly, should, in a very few years, gladden the watchful observer by producing some such cheerful evidence as a squamous epithelioma of the cervix, or perhaps a papillary adenocarcinoma. It is reasonable to suppose that we may yet, through methods so admirably adapted to the purpose sought, effect a notable increase in the incidence of cervical cancer, already so significantly high. It is almost too much to hope that the disease can be universalized among women, though that should be the goal.

It Might Have Come From a Doctor

The following letter is said to have been received by a banker in a western state. It might have been written by a physician:

Gentlemen:

I wish to inform you that the present shattered condition of my bank account makes it impossible for me to send you my check in response to your request. My present financial condition is due to the effect of the federal laws, state laws, county laws, incorporation laws, by-laws, brother-in-laws, and outlaws, that have been foisted upon an unsuspecting public. Through these various laws I have been held down, held up, sat on, walked on, flattened, squeezed and broke until I do not know what I am, where I am, or why I am.

These laws compel me to pay a merchant tax, capital tax, excess tax, incorporation tax, real estate tax, property tax, auto tax, gas tax, light tax, water tax, cigar tax, school tax, syntax, liquor tax and carpet tax.

In addition to these taxes I am requested and required to contribute to every society and organization that the inventive mind of man can invent and organize: To the Society of St. John the Baptist, the Woman's Relief, Navy League, the Children's Home, the Policemen's Benefit, the Dorcas Society, the Y. M. C. A., the Gold Diggers' Home, also to every hospital and charitable institution in town; the Red Cross, the Black Cross, the White Cross, the Purple Cross, the Flaming Cross and the Double Cross.

The government has so governed my business that I do not know who owns it. I am suspected, expected, inspected, and disrespected, examined, reexamined, informed, required, commanded and compelled until all I know is that I am supposed to provide an inexhaustible supply of money for every known and unknown deed, desire or hope of the human race, and because I refuse to donate to all and then go out and beg, borrow or steal money to give away, I am ousted, cussed, discussed, boycotted, talked to, talked about, lied about, held up, held down, and robbed until I am just about ruined.

The only reason that I am clinging to life at all is to see what the hell is coming next.

Very respectfully,

—*Amer. Med. Assn. Bulletin*, April, 1931.

Contemporary Progress

(*Concluded from page 260*)

nite and continuous improvement under treatment except those with an associated acute infection; when the infection subsided, blood regeneration again proceeded at the normal rate. The response to the treatment was especially good in cases of nutritional anemia. At the close of the period of observation and treatment, the average red cell count in these cases was 4,700,000 and the average hemoglobin 85 per cent. Fifteen of the cases that were followed for six months showed normal red cell and hemoglobin values.

Relation of Tonsils and Adenoids to Infection in Children

A. D. Kaiser (*American Journal Diseases of Children*, 41:568, March, 1931 presents a study of the incidence of various infections over a ten year period of observation in 2,200 school children who had tonsils removed between the ages of four and seven years, in comparison with a similar group of 2,200 children for whom operation was recommended but not done. This study shows that the incidence of certain infections was definitely reduced in the tonsillectomized children; these infections include: colds in the head, sore throat, cervical adenitis, otitis media, rheumatic disease, diphtheria, scarlet fever, nephritis, and dental infections. Other infections showed about the same incidence in both groups, including chorea, measles, and tuberculosis. Three diseases had a somewhat higher incidence in the tonsillectomized group: bronchitis, pneumonia and sinusitis. The author notes also that malnutrition was only slightly more frequent in the non-operated group than in the tonsillectomized children, although in individual cases the malnourished child was definitely benefited by tonsillectomy.

Arrested Growth in Long Bones in Diabetic Children

H. A. Harris (*British Medical Journal*, 1:700, April 25, 1931) reports that radiographical studies of the long bones in children show lines of arrested growth—transverse striæ—especially in the region of the knee joint, produced not only by the acute exanthemata but also by metabolic disturbances. Multiple lines of arrested growth have been constantly found in diabetic children in whom the disease was of long standing. Radiographic examination of the long bones at stated intervals is a valuable means of recording the repeated arrests of growth that occur in such metabolic diseases as diabetes.

Phenobarbital

Phenobarbital, 10 grains, given at 9.00 o'clock the night previous to operation largely overcomes the apprehension of the patient about to be operated on.

It decreases the amount of morphine required in the postoperative care of patients, and we believe there is less intestinal derangement, resulting in less postoperative distension, and thereby adding to the comfort of the patients.

It decreases the quantity of ether required for surgical anæsthesia by an appreciable amount.—Graham, *Can. Med. Ass. Jour.*, May, 1931.

Erythrol Tetranitrate Merck

Literature on request

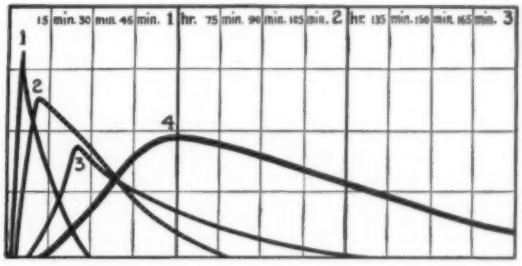
Chart shows relative reduction of pulse tension produced by

1. Amyl Nitrite
2. Nitroglycerin
3. Sodium Nitrite
4. Erythrol Tetranitrate

Effective Vasodilator

Useful in Angina Pectoris, vascular diseases, and as a prophylactic for anginal pain.

Tablets—¼ grn. Bottles of 50
Tablets—½ grn. Tubes of 24 and Bottles of 100



MERCK & CO.
INC.
Rahway, N. J.

Summer Diarrhea

The following formula provides a means of supplying the principal fuel utilized in the body for the production of heat and energy and furnishes immediately available nutrition well suited to protect the proteins of the body, to prevent rapid loss of weight, to resist the activity of putrefactive bacteria, and to favor a retention of fluids and salts in the body tissues:

Mellin's Food . . 4 level tablespoonfuls
Water (boiled, then cooled) **. 16 fluidounces**

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

The usual custom is to give one to three ounces of this mixture every hour or two until the stools lessen in number and improve in character. The food mixture may then be gradually strengthened by substituting one ounce of skimmed milk for one ounce of water until the amount of skimmed milk is equal to the quantity of milk usually employed in normal conditions. Finally the fat of the milk may be gradually replaced, but as milk fat is likely to be digested with much difficulty after an attack of diarrhea it is good judgment to continue to leave out the cream until the baby has fully recovered.

Further details in relation to this subject and a supply of samples of Mellin's Food sent to physicians upon request.

Mellin's Food Company - - - Boston, Mass.

International Neurological Congress Will Meet at Berne

The International Neurological Congress, an event already planned before the war, will be held in Berne from August 31st to September 4th. Some 700-800 neurologists from over thirty different countries will meet in the centrally located Swiss capital, in order to discuss the newest discoveries and experiences in the realm of modern Neurology. Mr. Henri Haeberlin, the President of the Swiss Confederation, will be Honorary Chairman.

The Congress is of such outstanding importance in the neurological field that a large contingent of American neurologists and psychiatrists, as well as members of psychiatric societies, are expected to take advantage of the exceptional opportunities it affords.

Papers will be presented during the morning sessions by internationally known authorities on this subject and afternoon conferences will be devoted to miscellaneous topics. There will also be extensive commercial exhibits of physiotherapeutic equipment, x-ray apparatus, etc.

Sessions of the Congress will be held in the Municipal Casino, a building admirably suited to the purpose. Social events and excursions to famous points of interests in the vicinity will be provided for the entertainment of the visitors. Berne, the Congress city, is without doubt one of the most delightful and most suitable places for this event. It is not only noted as one of the loveliest and most beautifully located medieval cities in the Old World, but it is also an educational and medical center of foremost rank.

Members of the International Neurological Congress will moreover have an opportunity to visit the Swiss Exhibition for Hygiene and Sport, held in Berne from July 24th to September 20th. Huge exposition buildings are now being erected on the spacious Vierenfeld and the manifestation will cover every possible feature connected with human health and the various factors which contribute to its upkeep from infancy on. Contests in a thrilling variety of sports and pastimes will be a special feature of the delectable program of entertainment which has already been established.

Occupational Poisons in New York

A statement concerning occupational poisons from which workers of the State have suffered and for which they claimed compensation during 1930, has just been given out by the New York State Department of Labor. Though 27 different poisons are compensated under the New York law, compensation was sought in the case of only 18 during the year, the report states.

The statement reveals that lead, benzol, chromium and carbon monoxide are still the predominant hazards in New York industries, while cases of poison from fur dyeing and chrome plating are on the increase. Altogether 770 cases of occupational poison were reported during the year. Of these, 350 were due to lead, 36 to benzol, 29 to chromium, 21 to carbon monoxide and 334 from all other industrial poisons.

"Few people know that dangerous poisons are often used in the preparation of articles that look so attractive in our store windows", the report reminds one. "With proper precaution the hazards due to these poisons may be obviated, but often the manufacturers and the workers do not know the dangers until they have begun to feel their bad effects. New York State, through the Department of Labor, provides that all industrial work be done under hygienic conditions and that all factories and workshops be properly ventilated. The Division of Industrial Hygiene, 80 Centre Street, New York City, is at the service of employer and worker alike to reduce the hazards due to the use of poisons in industry."

The report has some illuminating paragraphs on some of the most usual occupational poisons:

"One of the old hazards, well known and understood, is lead. At the present time storage battery plants account for a large proportion of the lead hazard, although there are only a few storage battery plants in the state. Our records show that a larger nunmber of cases of lead poisoning come from these than from lead painting, which employs a much larger number of men.

"In painting we have avoided the dangers of lead largely by substitution of benzol and similar chemicals as the basis of lacquer thinners, widely used on automobile bodies, lamps, chandeliers, ornamental iron work, etc., but in this there is a new danger. For the lacquer is applied in a spray, which creates a vapor, and this, when breathed by the worker, may first cause headaches and loss of breath, and in later stages, heart affections, skin eruptions and delirium.

"Carbon monoxide is a widespread occupational danger, often unrecognized because it has no smell nor color. It is a sure poison and many a worker is affected by it but does not know the cause. He sees no gas; he smells no gas; yet he gets a headache and that is the first symptom. If he has not breathed too much of the poison the cure is at hand. All he has to do is to breathe fresh air and he will be restored in a minute, but too much of the poison will permanently injure him. Workers in hat forming factories are commonly in danger of carbon monoxide poisoning from the fumes from gas appliances often carelessly used in the work.

"Preventing occupational poisons is a difficult matter. No sooner have you banished one poison than another comes in its place. For years we sat a breakfast and looked at our nickel plated toasters, after coming from the bathroom where every fixture was nickel plated. These days are over and now we have replaced the harmless nickel plating by the newer and more attractive chrome plating. All the world over, with one accord, the platers took to chrome plating. They did not know that unless proper precautions are taken, the fumes of chromic acid may cause perforation of the nasal septum and nasty disagreeable sores on the bodies of the workers. Chrome plating is used for grills, compacts, mirrors, and countless other attractive articles. Even shoes are now chrome tanned, the process being cheaper than the old-fashioned tanning process, but also more dangerous.

"Aniline is another poison. Those becoming furs which you wear around your neck must be dyed and they are most effectively dyed with aniline. Some of the dyes are harmless; some are poisonous and the fur worker does not know which is which. The fur industry has much to learn about hygiene. It ought to discriminate between the use of safe and unsafe dyes, which is often the difference between good and bad dyes. No dye is good in our opinion if it poisons the worker, and there is no justification for its use."

The handling of furs, even before the dyeing process begins, is often dangerous, according to the report. Unless the precautions are taken, anthrax—a disease accompanied by sores and ulcers, together with internal troubles—may result from inhaling the dust from furs, hides or other animal products, especially if these be infected.

Not only fur workers, but brush makers, carpet weavers, leather tanners, and men who work in slaughter houses handling raw hides or who unload hides and wool from ships, may be exposed to this disease, although it is not at present very prevalent.

Other prominent occupational poisons mentioned are arsenic poison, which also may be contracted in a variety of seemingly harmless occupation—pottery decorating, carpet making, feather curling, wall paper printing; and wood alcohol poisoning, from the manufacture of varnish, from toy painting, from the making of buttons, shoe polish, artificial flowers, etc. Of silica poisoning, which, although it affects workers in rock drilling, sand blast cleaning and the maaufacture of cleansing and scouring materials, is not legally recognized as a compensable disease, the report says: "Almost every dust is a hazard and silica dust particularly so. This kind of poison is insidious. A worker continues breathing silica dust for years without apparent inconvenience, but in the long run it gets him. His lungs clog up; his breathing becomes difficult; he no longer is able to work. Yet this is not inevitable if proper preventive measures are observed.

"Industry is so complex that few workers, or even employers, can recognize the numerous poisons with which they work daily in order to turn out even the simplest piece of goods. Added to this is the fact that when a worker is sick he usually is unaware of the fact that the industry in which he is engaged may be responsible, and he goes to a doctor, who may also be ignorant of occupational hazards."

In the case of nearly all the poisons enumerated, elaborate and consistent hygienic precautions are necessary to prevent dangerous effects. Thorough ventilation programs are needed to eliminate the hazards in many cases.

Liquid Glandular Extracts

Organotherapeutic preparations in liquid form are now made, to obtain the high therapeutic efficiency of the fresh gland. Instead of the long drawn out process of defatting, desiccating, etc., of the glands, the fresh glands are extracted with glycerol at incubator temperature. Glycerol disrupts the cells and takes up all the water soluble constituents of the glands and being neutral, will not cause any changes, an acid or alkaline medium would. Glycerol extracts are stable, without addition of alcohol or other preservatives. They are palatable and preferred by the patients, as they can be taken in water, milk, orange juice, etc. L. H. Lang, 41 East 42nd St., New York City, prepares liquid glycerol extracts of all the fresh, single glands. Samples and literature are obtainable.

Bronchiectasis

Always search for infection of the paranasal sinuses.

MEDICAL BOOK NEWS

Edited by WILLIAM HENRY DONNELLY, M.D.

All books for review and communications concerning Book News should be addressed to the Editor of this department at 1313 Bedford Avenue, Brooklyn, New York.

JULY

REVIEWS

Modern Methods of Treatment

MODERN METHODS OF TREATMENT. By Logan Clendening, M.D. Fourth edition. St. Louis, The C. V. Mosby Company, 1931. 819 pages illustrated. 8vo. Cloth, $10.00.

This is a worth-while volume. Clendening has kept it abreast of modern therapy, and it may be boldly said that practically everything of proven value in therapeutics is within the 800 pages. Diet, hydrotherapy, diagnostic measures, and physical procedures in treatment are included.

Psychotherapy is not neglected, and the sixteen pages of chapter XII constitute a valuable essay on the treatment of the mental attitude of patients with neurotic symptoms.

Chapter II of 163 pages on Drugs is worthy of perusal by any physician. The author's easy style is attractive, a wealth of observation is presented, and every effort is made towards frankness and truth. Clendening has read broadly and does not spurn the clinical lessons of the past. If he has found a drug product of a certain manufacturing house to have special merit, he says so. Thus his book exhibits positive coloring.

He quotes liberally and introduces many personal comments. These add to the interest of the volume, and inestimably to its value. To a young practitioner, lost in the strange fields of therapeutics, it should be a splendid guide, and to an older man, a great comfort, for it tells what both would like to know.

It is not to be wondered at that this is the fourth edition.

FRANK BETHEL CROSS.

Selections from the Papers and Speeches of John Chalmers DaCosta

SELECTIONS FROM THE PAPERS AND SPEECHES OF JOHN CHALMERS DaCOSTA, M.D., LL.D. Philadelphia and London, W. B. Saunders Company, 1931. 440 pages, illustrated. 8vo. Cloth, $6.50.

prepared of Prof. Da Costa's wit and humor as disclosed in his amphitheatre where he has thrilled thousands of students and fired them with enthusiasm by his masterly control of the English language and his scholarly reference to happenings in history of which he has great knowledge.

Anyone who has heard Prof. Da Costa lecture and now reads this book, can roll back the years and dream of another day when he was held spellbound by one of the greatest teachers of surgery whose mental activity and keenness of observation are marvellous.

He expresses himself upon lawyers and politicians in caustic manner, not overdone, manifesting his aversion to both, and substantiating his reasons with true anecdotes.

The chapter, "Behind Office Doors," might well be termed a "Poor Richard's Almanac," with its pithy sayings and words of admonition. The one on "Old Philadelphia," with its ultra honest merchants makes us realize that progress is no longer a virtue.

A well deserved portion of this book is devoted to a glowing tribute of Samuel W. Gross and W. W. Keen.

It is in every way a brilliant book and it casts light upon the great masters in surgery and the great literary figures and statesmen (not politicians) who lived when our nation was yet young.

All those who have attended Jefferson Medical College, or who have heard Prof. Da Costa speak will undoubtedly read this book, and others can ill afford to miss this unusual opportunity.

W. G. FLICKINGER.

Problems and Methods of Research in Protozoology

PROBLEMS AND METHODS OF RESEARCH IN PROTOZOÖLOGY. (By various contributors.) Edited by Robert Hegener and Justin Andrews. New York The Macmillan Company, 1930. 532 pages, illustrated. 8vo. Cloth, $5.00.

This book is a veritable gold mine of information. The editors have collected an immense amount of material scattered through a voluminous literature and condensed it into a volume of 500 pages. It is designed as a guide for students and investigators but any physician may read certain parts with profit. The difficulties of research in this field, the problems awaiting solution and their relation to problems in human pathology show clearly that progress in this science will ultimately help medical science.

The editors have been assisted in writing the numerous chapters by a notable group of specialists in protozoology. Among many interesting articles, there are twelve chapters on protozoa, chapters on amebae, an unusually thoughtful article on the differential diagnosis of the dysenteries and several most interesting chapters on research in malaria. Far from being a closed subject, future discoveries in research of this disease may be of great importance in medicine.

Throughout the book there are numberless technical directions and at the end a chapter on methods and reagents an extensive bibliography.

E. B. SMITH.

Tuberkulosefragen

TUBERKULOSEFRAGEN IN DER SPRECHSTUNDE DES PRAKTISCHEN ARZTES. Von Dr. A. Flatzeck. München, Aerztlichen Rundschau Otto Gmelin, 1929. 23 pages. 12mo. Paper, Marks .80.

A very good guide in the methods of examination of patients, inflicted not alone with tuberculosis, but of general debility, anemia, etc., it emphasizes Roentgenographs in all suspected cases, in combination with the blood sedimentation test. It is emphatic, concise and decidedly progressive in its presentation of this subject.

L. KOEMPEL.

Die therapeutische Anwendung des hochgespannten Hochfrequenzstromes

DIE THERAPEUTISCHE ANWENDUNG DES HOCHGESPANNTEN HOCHFREQUENZSTROMES—EINE UMSTIMMUNGSBEHANDLUNG. Von Dr. Karl Grandauer. München, Aerztlichen Rundschau, Otto Gmelin, 1930. 52 pages. 8vo. Paper, Marks 3.00. (Heft 37: Sammlung diagnostisch—therapeutischer Abhandlungen für den praktischen Arzt.)

A very exhaustive treatise on this subject, describing its effect upon various secretions of the body; upon the constituents of the blood, upon the autonomous nervous system, the skin, the renal system, respiratory organs, etc. The booklet is highly scientific, with tables of elimination of uric acid, etc., but well written and concise in form and expression.

L. KOEMPEL.

Die Hochfrequenz-Therapie von Arsonval bis Zeileis

DIE HOCHFREQUENZ-THERAPIE VON ARSONVAL BIS ZEILEIS. Von Dr. med. Werner Christian Simonis. München, Aerztlichen Rundschau Otto Gmelin 1930. 67 pages, illustrated. 8vo. Paper, Marks 3.00.

Describing the various apparatus in use in Electro-Therapeutic Institutions; also new methods of the use of Radium, in combination with this current as practiced by Zeileis in Austria, an eminent irregular "healer" boasting of 1000 patients daily.

L. KOEMPEL.

Orthopaedische Fussgymnastik

ORTHOPAEDISCHE FUSSGYMNASTIK. Von Dr. R. Wilhelm. München, Aerztlichen Rundschau Otto Gmelin, 1930. 32 pages, illustrated. 8vo. Paper, Marks 2. (Sammlung diagnostisch-therapeutischer Abhandlungen für den praktischen Arzt. Heft 34.)

This little booklet is well written, describing the benefits, methods, etc., of exercises, baths and massage in cases of weakness of the foot, resulting in skeletal distorsion, flattened arches, etc. Would recommend this treatise to the general practitioner as introduction into a field, little understood and rarely investigated by most physicians, and yet such a potent factor in its ultimate effect upon the general health of our patients.

L. KOEMPEL.

Conditions and Consequences of Human Variability

CONDITIONS AND CONSEQUENCES OF HUMAN VARIABILITY. By Raymond Dodge. New Haven, Yale University Press, 1931. 162 pages. 8vo. Cloth, $2.50. (Institute of Human Relations.)

Writing for fellow scientists, Professor Dodge is an experimentalist gathering the scattered fragments of his work "into coherent form to discuss their implications."

Professor Dodge's explorations have led him to rate high the significance of variability in mental development and in consciousness. He has endeavored to formulate a working hypothesis in answer to the controversial problem, "What are the specific neural conditions of experience, personality and behavior?" His experiments have led him to believe that consciousness is a systematization of neural conditions, rather than any specific character of the unintegrated fragments.

While the reader of *Condition and Consequences of Human Variability* will need to be equipped with a thorough scientific and psychological background, the lay reader and clergy of all denominations will be profoundly interested in Professor Dodge's last chapter discussion of mind without brain. Considering the possible conjunction of religion with science, Professor Dodge accepts the compromise he terms the scientific attitude.

"It is a good maxim in everyday life," he asserts, "that the cure for darkness is not less light but more. The hypothesis is not entirely fantastic that each embryo, as it grows and develops, recapitulating the history of its race, represents a conscious moment in some supraindividual mind; and that each developing nebula [of the solar system] conditions an idea in some spirit of the universe. Farther than this we may not go with our present scientific knowledge . . . it fits the facts better than any other that I know, and the way is apparently open for conscientious faith to say, 'I will conduct myself as though the great hypothesis is true.'"

FREDERIC DAMRAU.

The Recovery of Myself

THE RECOVERY OF MYSELF: A Patient's Experience in a Hospital for Mental Illness. By Marian King. New Haven, Yale University Press, 1931. 143 pages. 8vo. Cloth $2.00.

The book is an autobiography of a young, wealthy, pampered psychoneurotic female whose disquieting nature found homelife boring. Her upbringing was apparently of the best and she took advantage of all sorts of athletic and educational and recreational activities. Her life was one of ceaseless activity and she was rewarded on various occasions with prizes. There was no time, however, for rest or meditation but she constantly sought more and more interests to keep her restless unstable mind appeased. This vicious cycle indirectly accounted for her becoming a virtual addict to veronal in which she secretly indulged in gradually increasing doses and which finally led her parents to send her to a mental institution. All these various observations and wierd reactions of the layman to such an institution are well described in this book, and should be interesting to the physician whose contacts produce antithetical and unimaginative responses. She speaks of a mental institution as a "home of marvellous cures," and she is convinced that only by such a radical change was she later able to appreciate the depth of parental affection. She pleads for more nervous and mental hospitals but might not the proper regulation of one's habits and daily regime be a more saner method of approach to help reduce the need for more mental hospitals?

This book teaches certain lessons:

First, the need for legally restricting the sale of deleterious medicinal agents unless authorized by a physician.

Second, The importance of teaching and advising parents how to manage their children.

And finally, to teach every child to "know thyself," which she feels is the greatest study in life.

EMANUEL KRIMSKY.

Easier Motherhood

EASIER MOTHERHOOD: A Discussion of the Abolition of Needless Pain. By Constance L. Todd. New York, The John Day Company, 1931. 199 pages. 12mo. Cloth, $2.00.

Nobody can take issue with anyone advocating easier motherhood, as this book evidently sets out to do. But when the writer tells us that easier motherhood means the Gwathmey technic or synergistic colonic analgesia one must question her authority to dictate to untutored mothers certain teachings which are not entirely recognized by the medical profession. "The use of the Gwathmey technic in obstetrics is apparently spreading in some quarters," she says. "The layman is in the last analysis to blame if it spreads no faster." She lists the various hospitals in the entire country where the Gwathmey technic may be obtained, including other forms of analgesia. Several chapters are devoted to testimonials of mothers who have responded favorably to this method. No mention is made of the experiences or opinions of prominent obstetricians. She creates the impression that the safest place for a confinement is in the hospital. In the last chapter she asks "why do the young mothers of the lack of easier motherhood seems to be her solution to this problem.

EMANUEL KRIMSKY.

Microbiology and Elementary Pathology

MICROBIOLOGY AND ELEMENTARY PATHOLOGY: For the Use of Nurses. By Charles G. Sinclair, M.D. Philadelphia, F. A. Davis Company, 1931. 362 pages, illustrated. 8vo. Cloth, $2.50.

This text-book for nurses is well-conceived. It covers the subjects indicated in a manner satisfactory for the purposes of educating the nurse in these special fields. It is obvious that the author has had ample experience in the teaching of nurses in technical fields and has wherever possible indicated the elements of the subject of practical import from the viewpoint of modern scientific nursing.

After ten years of teaching of nurses the reviewer still questions the advisability of entering too deeply into the fundamental sciences in educating nurses. Too often the practical elements of nursing are slighted. There is no doubt but that the acquisition of the knowledge embodied in the text under discussion is possible only with such girls who have had the advantages of higher education.

On the whole, the work is to be commended as a text. The publisher has also taken into consideration the fact that a text-book must needs stand some wear and tear; the binding and paper employed are compatible with a reasonable length of life of a text-book.

EMIL F. KOCH.

Handbook of Protozoology

HANDBOOK OF PROTOZOOLOGY. By Richard Roksabro Kudo, D.Sc. Springfield, Illinois, Charles C. Thomas, 1931. 451 pages, illustrated. 8vo. Cloth, $5.50.

This publication is an improvement over most others of this class in that it gives the proper amount of space to taxonomy, biology and orientation of the free living form, besides emphasizing the parasitic form which in the opinion of the author undoubtedly arose from the free living forms.

The book is divided into two parts. The first part deals with a general account of the morphology, physiology and reproduction of Protozoa. Three chapters are devoted to this phase. The second part, which is composed of thirty chapters, is concerned with taxonomy, biology and development of the common Protozoa. Each chapter has references to the most important monographs on the subject at hand. Many of these monographs being inaccessible to the average student of biology, this book becomes a comprehensive volume containing the essentials of these monographs.

SILIK H. POLAYES.

Theory of Obstetrics

THE THEORY OF OBSTETRICS: A Functional Study of Child-Bearing Based on a New Definition of Normal Labour and on a New Theory of Uterine Inertia. By M. C. de Garis, M.D. New York, William Wood and Company, 1931. 272 pages. 8vo. Cloth, $5.00.

A curious book by a general practitioner of Australia. It attempts to develop a theory that the only normal labor is a painless one. We exaggerate mechanical difficulties, do not pay enough attention in the first stage, and fail to realize the prevalence and importance of vaginal spasm as a cause for dystocia. Eclampsia is a complication of pyelitis. Auto-genetic infection is common, and attention to oral sepsis will work wonders. Many strange remedies are mentioned, and use of raspberry tea is advocated. The book is stimulating and interesting, and the author is to be congratulated on making the most of a small amount of clinical material. She looks at obstetrics from an entirely original viewpoint and is a remarkable general practitioner.

C. A. G.

Children Who Run on All Fours

CHILDREN WHO RUN ON ALL FOURS and Other Animal-Like Behavior in the Human Child. By Ales Hrdlicka, M.D., Sc.D. New York, Whittlesey House, McGraw-Hill Book Company, Inc., 1931. 418 pages, illustrated. 8vo. Cloth, $5.00.

This study was suggested by the observation of an Indian child running on all fours 30 years ago. 387 cases have been collected of which 369 are white, 18 colored. The phenomenon is apparently not frequent and is to be looked upon as a diminishing continuance from the far past. Male children predominate in the proportion of 3 to 2. Children who run on all fours use much the same gait as monkeys, bears and dogs. They run with their hands and feet flat on the ground. This is to be distinguished from the more common, running on the hands and knees which is not a true type of running on all fours.

In general, the children in whom this phenomenon has been noted have been healthy, strong and mentally alert. The peculiarity has been seen mostly in the first 18 months of life. There has been no interference in the future normal development of these children.

The first half of the book is devoted to a general presentation of the subject. The second half contains individual case reports.

The reviewer recommends the book as interesting and informative. STANLEY S. LAMM.

The Sex Factor in Marriage. By Helena Wright, M.B., B.S. New York, the Vanguard Press, 1931.

This type of book shows a significant increase. The Anglo-Saxon world has been long distinguished by a curious reticence about matters of sex and an accompanying grossness of approach in practice and in discussion on certain levels, just as a prohibition law is insisted upon at the same time that a determination is shown to make intoxicating beverages easily available. An ingrained hypocrisy, we suppose, accounts for this Jekyll-Hyde complex, ineffectually disguised by many euphemisms. Dr. Wright's book exemplifies the now familiar effort to break down inhibitions on a hitherto tabooed level and to call a spade a spade in discussing marital graveyards for the benefit of the general public.

The book aims to correct deficiencies in the sex education of married people who are mismated because of such deficiencies and therefore, presumably headed for misery or divorce. It is written around the idea that sexual intercourse is an art, not a natural thing, and in Chapter V Dr. Wright, who is a London gynecologist, attempts to teach the successful techniques guaranteed, or at least calculated, to sell the sex side of marriage to folk now mutually crabbed, hostile, or merely uninformed. It is argued that many unhappy people have not had even the benefit of a kindergarten grade of education in orgasmal technique, whereas they could just as well as not be university graduates, with honorary degrees besides.

One therefore turns to Chapter V, entitled The Perfect Sex-Act, as the Open Sesame to many blissful arcana. Therein one finds much provocative sales talk and finally the goods are exhibited. Of course, its "the old army game" once again. Don't be clumsy, etc. "A woman's body can be regarded as a musical instrument awaiting the hand of an artist," etc. Then comes a disquieting admission: "No amount of skill and tenderness on the husband's part can be successful unless the wife *is* willing to be roused" (we might interpolate "or able" to be roused, as in the case of so many chaste because glandularly or otherwise deficient matrons; the word futility here acquires profound connotations).

But Chapter V is disappointing for many reasons, despite some good "pointers." Dr. Wright is evidently a teacher who would shine best in the classroom. In this case what the teacher lacks is an institute akin to those ancient schools of Corinth wherein instruction in the arts of love was regularly given by duly accredited pedagogues. Therein all practical issues would be disposed of adequately. As a practical illustration of what we mean, let us take Dr. Wright's descripiton (page 101) of one of the postures in coitus recommended by her as superior in the degree of sensation to all other positions (the posture most favored by classical Rome). She does not make the mechanics clear. It is clearly a case for the experimental laboratory and the clinic (Greek *kline*, bed). Dr. Wright admits herself that some of the methods recommended are too complicated for general use. Yet the book is not even illustrated. It suffers from a lack of photographic reproductions that would have clarified the text and aroused greater interest in the reader (and in other quarters as well).

We question very much whether the congenitally impotent, the frigid, the recalcitrant, the completely sublimated, the neuter, and that sort of woman who, in the words of Mencken, forever wonders what the whole thing is about, can be salvaged even by such an ardent and accomplished pedagogue as Dr. Wright. This great teacher means well, but no one can make a leaden people shine like gold. Her big class is packed on the one hand by men only too well endowed, as Mr. Chesterton sees them, from the goatish standpoint, and on the other by many women who stand upon a level, sexually, with morons in the sphere of intelligence. Not many will be graduated *cum laude* from this bookish grade school. What the world needs is a Corinthian Academy, new style, for the married boobs who evoke Dr. Wright's hopes and tears, in so far as they are reclaimable. What philanthropist will take heed and earn the gratitude of a bored and baffled segment of the race which is confronted by a great message but is sexually illiterate and disfranchised? A. C. J.

Progressive Medicine, March, 1931

PROGRESSIVE MEDICINE: A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. and assisted by Leighton F. Appleman, M.D. Vol. 1, March, 1931. Philadelphia, Lea & Febiger, 1931. 320 pages, 8vo. Cloth, $3.50; per year (4 volumes), $12.00.

This volume consists of excellent reviews on the Surgery of the Head, Spinal Cord and Peripheral Nerves, Surgery of the Thorax including the Breast and Goitre, Infectious Diseases, Diseases of Children and Rhinology, Laryngology and Otology.

The surgical reviews are broad in scope and contain much of general interest in addition to the purely surgical material. In the section dealing with the pleural cavity modern ideas regarding empyema are concisely presented. The section on the thyroid gland gives a concise account of the recent literature. In discussing the use of iodine, the work of Fulton and Alt is referred to with regard to the different iodine preparations which may be used. These writers used Lugol's solution, potassium iodide and a brand of calcium iodobehevate (sojodin), in the preoperative treatment of thyrotoxicosis and compared the results. They found them equally effective and that "the amount of iodine given within the range of the usual therapeutic doses does not appear to be of any significance."

The usual high character of this very useful reference series is maintained. W. E. MC COLLOM.

Protozoan Parasitism of the Alimentary Tract

PROTOZOAN PARASITISM OF THE ALIMENTARY TRACT: Pathology, Diagnosis and Treatment. By Kenneth M. Lynch, M.D. New York, The Macmillan Company, 1930. 238 pages, illustrated. 8vo. Cloth, $3.75.

As an exposition of the subject indicated this little volume represents a carefully evolved monograph striking the essentials in an admirable manner and leaving in the background the controversial material. The treatment, conception and illustrations are all that can be desired to present the subject clearly and emphatically.

As the author points out, there is great paucity of information among medical men on the role played by protozoa, particularly in alimentary tract infestations, in the pathogenesis of human infections. In the capacity of a short monograph, Dr. Lynch's work fills a gap between the technical and academic protozoology of the specialist and the frequently vague and nebulous protozoology of the practitioner of medicine. Not only in this field, but also as a guide to students and laboratory workers the work is to be commended. The author is to be congratulated on his success in accomplishing the task; and it is to be hoped that the book will not gain in length or diffuseness in later editions as so many useful works do, failing ultimately in their primary object. EMIL F. KOCH.

THE PRACTICAL MEDICINE SERIES, 1930

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Series, 1930. Chicago, The Year Book Publishers, 1930-1931.

General Medicine

GENERAL MEDICINE. Infectious Diseases. By George H. Weaver, M.D., with the collaboration of T. T. Crooks, M.D. Diseases of the Chest (Excepting the Heart.) By Lawrason Brown, M.D. Diseases of the Blood and Blood-Making Organs; Diseases of the Kidney. By George R. Minot, M.D., S.D., and William B. Castle, M.D. Diseases of the Heart and Blood Vessels. By William D. Stroud M.D. Diseases of the Digestive System and Metabolism. By Ralph C. Brown, M.D. 848 pages, illustrated. 12mo. Cloth, $3.00.

In general the same arrangement as of previous years is followed, the five parts dealing with Infectious Diseases, Diseases of the Chest, of the Blood and Blood-Making Organs, of the Kidney, of the Heart and Blood Vessels, of the Gastro-Intestinal Tract, and of Metabolism. In the part devoted to the diseases of the heart and blood vessels the order of the table of contents has been changed to conform to the Nomenclature for Cardiac Diagnosis approved by the American Heart Association, originally decided upon by a Committee appointed by the Heart Committee of the New York Tuberculosis and Health Association. This has been done with the hope that physicians will develop the habit of thinking of the diagnosis of cardio-vascular disease in the terms of Etiology, Anatomy, Physiology and Functional Capacity.

As usual the book furnishes convenient abstracts which are not too brief, of the principal articles published in the leading medical journals of the preceding year and is a very useful volume. W. E. MC COLLOM.

General Surgery

GENERAL SURGERY. Edited by Evarts A. Graham, A.B., M.D. 848 pages, illustrated. 12mo. Cloth, $3.00.

The General Surgery volume of the Practical Medicine series for the year 1930 is well up to the usual standard of these yearly volumes.

The summarized articles contain many new features. One of particular interest is the Hodgen lecture by Barney Brooks on "Surgical Applications of Therapeutic Venous Obstruction".

New instruments and procedures for the injection of varicose veins are discussed in several abstracts. There are some interesting abstracts on surgery of the large bowel, particularly those of Rankin and McCuskey of the Mayo Clinic. In 325 of these cases 88 per cent were done under spinal anesthesia. The abstracts on fractures are unusually large in number and contain some very interesting work on fractures of the upper extremities.

This volume is very useful to all practitioners of surgery as it is a ready reference of the recent current literature on practically all subjects. HERBERT T. WIKLE.

Eye, Ear, Nose and Throat

EYE EAR, NOSE AND THROAT. The Eye. By Charles P. Small, M.D. The Ear. By Albert H. Andrews, M.D. The Nose and Throat. By George E. Shambaugh, M.D. With the collaboration of Elmer W. Hagens, M.D. 568 pages, illustrated. 12mo. Cloth, $2.50.

This little volume appears again to review its special fields for 1930. It is one of a series of 8 year books. A slip inserted by the publisher says that "each volume is complete on the subject of which it treats". This statement is incorrect as it refers to the work under review. Much material has been omitted. These omissions can doubtless be excused by the restriction of the work to a "Practical Medicine Series" for what is practical; and what is not, must rest with the editors.

While the material is well arranged, it lacks continuity of thought which could be overcome by rearranging paragraphs. These criticisms are of a very minor sort however, as the work is very much worthwhile. The book, though well indexed and though referring to numerous authors by name, does not contain a bibliography. Relatively little added effort would give this book a perpetual value. J. N. EVANS.

Obstetrics and Gynecology

OBSTETRICS. Edited by Joseph B. DeLee, A.M., M.D., and J. P. Greenhill B.S., M.D.—Gynecology. Edited by John Osborn Polak, M.D. 640 pages, illustrated. 12mo. Cloth, $2.50.

This volume of the Practical Medical Series of 1930 is always eagerly awaited by most obstetrical and gynecological specialists, and we imagine, quite a few general practitioners. It really, if read carefully and earnestly, gives one a "corking" post-graduate course and is therefore very useful and beneficial to the small town physician and is not without considerable value to the big town practitioner and specialist. To the fellow who has ample opportunity of seeing and reading but who lacks the "punch" to make use of this opportunity such a volume is a valuable addition to his library where he may relax, "turn on the radio" and absorb all worth-while obstetrics and gynecology published in 1930—and all this in a handy single volume.

The Editors, as usual, have added their illuminating comments following most of the abstracts. These are worth the price of the book—terse, instructive and amusing—yet given in the kindly spirit of the good Teacher. They would do well to add more comments and criticisms for thereby many readers would know better "who" and "what" to believe. Let us have more!

This volume, as others of the series, should be on every practitioner's reading table. HARVEY B. MATTHEWS.

Pediatrics

PEDIATRICS. Edited by Isaac A. Abt, M.D. With the collaboration of Arthur F. Abt, M.D. 451 pages, illustrated. 12mo. Cloth $2.25.

This book, which is published with others of the series, is once more available, and it should be as popular as any of its predecessors. The pediatric literature which has accumulated since the publication of the last volume has been carefully reviewed, and the editors have selected these articles which were considered sufficiently important. The abstracts from this material have been carefully made and contain the essentials. The short comments made by the editors in connection with many of the abstracts are most valuable. The volume provides the physician in active practice with a book which covers in an admirable way the progress made in the field of pediatrics. It is a practical and a useful publication, which may be read with profit by general practitioner and specialist alike, and for the man who wishes to keep abreast of the advances made it is most economical in the saving of time. JOSEPH C. REGAN.

General Therapeutics

GENERAL THERAPEUTICS. By Bernard Fantus, M.S., M.D., in collaboration with Louis B. Kartoon, B.S., M.D. 456 pages, illustrated. 12mo. Cloth $2.25.

This issue contains a number of practical hints on various clinical conditions which would no doubt win a greater appeal classified more systematically. This shortcoming is partly overcome by the italicizing of many of the salient features in the text.

Some of the topics that should find especial interest are:

1. A shortened prophylactic treatment against Hay fever.
2. A revival of the oil treatment for biliary stones which many years ago met with disfavor by the profession.
3. In the chapter on the use of iodin in exophthalmic goiter there is a note of warning against its use as stated in the following words—"Patients with moderately severe or severe exophthalmic goiter rarely show more than temporary improvement during the prolonged administration of iodin. Frequently the disease becomes more severe than before iodin was started".
4. Two articles are devoted to what is regarded as a successful response in amenorrhoea and menstrual disorders by the use of anterior pituitary extract.
5. One contributor has made a study on children of the respective antirachitic values of cod-liver oil and viosterol and finds the former to be many times more effective.
6. One of the common notions that morphin impairs renal-function is emphatically negated.
7. The routine use of digitalis in Pneumonia is attacked as dangerous.
8. The curative value of tetanus antitoxin in active tetanus is viewed as doubtful.
9. Pertussis vaccine for or against whooping cough is finally found to be inefficacious.
10. One writer recommends the use of tuberculin therapy in active urologic tuberculosis. It would seem as if the storm of resentment against tuberculin therapy in active tuberculosis has not entirely subsided.
11. The moot question of calcium in relation to health and disease is discussed but nothing conclusive is offered to simplify this involved problem. EMANUEL KRIMSKY.

Dermatology and Urology

DERMATOLOGY AND SYPHILIS. Edited by William Allen Pusey, A.M., M.D., and Francis Eugene Senear, B.S., M.D., with the collaboration of Max S. Wien, M.D. Urology. Edited by John H. Cunningham, M.D. 474 pages illustrated. 12mo. Cloth, $2.25.

This book of 450 pages is divided equally in the consideration of the two subjects. It contains brief reviews of the literature of the past year, both foreign and domestic, pertaining to these subjects. As such, its arrival is one of the most welcome to the personal library each year. Even though one tries to follow the current literature fairly closely there are always things that one misses, and the summaries of these articles may be found in this book; then, if necessary, the original article may be obtained for closer study. E. ALMORE GAUVAIN.

Nervous and Mental Diseases

NERVOUS AND MENTAL DISEASES. Edited by Peter Bassoe, M.D. 451 pages, illustrated. 12mo. Cloth, $2.25.

This book is the summary of the work in the preceding year in the field of neurology, the neuroses, and the psychoses. It is an excellent survey, by a noted authority, and covers in a bird's eye view the entire subject. Much attention is being given to disseminated encephalitis, and to multiple sclerosis. Attention is called to the newer methods of therapy, especially in poliomyelitis where it has been found that the employment of serum from adults who have not had a definite history of the infection, has met with considerable success. The vegetative nervous system has also received deserving attention. References to the leading articles in this field, both from American and foreign authors, enhances the value of the book, and gives it additional merit. The neurologist and psychiatrist should not be without it, and the general practitioner, will do well to read it, as it covers a large territory in a relatively brief space. IRVING J. SANDS.

BOOKS RECEIVED

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

TEXT BOOK OF PHYSICAL THERAPY. By William Benham Snow, M.D. Volume I. New York, Scientific Authors' Publishing Company, 1931. 708 pages, illustrated. 8vo. Cloth, $10.00.

HEART DISEASE. By Paul Dudley White, M.D. New York, The Macmillan Company, 1931. 931 pages, illustrated. 8vo. Cloth. $12.00. (Macmillan Medical Monographs.)

STREPTOCOCCI BLOOD STREAM INFECTIONS. By George E. Rockwell, M.A., M.D. New York The Macmillan Company, 1931. 79 pages, illustrated. 8vo. Cloth, $1.75.

THE SURGICAL CLINICS OF NORTH AMERICA. Volume 11, Number 2 (Lahey Clinic Number) April, 1931. Issued serially, one number every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 nos.). Paper, $12.00; Cloth, $16.00.

THE PREVENTION OF DISEASE IN THE COMMUNITY. By Curtis M. Hilliard. New York, McGraw-Hill Book Company, Inc., 1931. 193 pages, illustrated. 12mo. Cloth, $1.75.

NUTRITION AND DIET IN HEALTH AND DISEASE. By James S. McLester, M.D. Second edition. Philadelphia and London W. B. Saunders Company, 1931. 891 pages, illustrated. 8vo. Cloth, $8.50.

(Concluded on Ad page 21)

WE CAN SUPPLY YOU WITH ANY BOOK REVIEWED IN THIS JOURNAL, OR ANY OTHER BOOK IN PRINT. YOU WILL FIND IT A CONVENIENCE TO ORDER ALL OF YOUR BOOKS FROM ONE SOURCE. PROMPT SERVICE.

Phones: VOl. 5-1044-1045

T. H. McKENNA

MEDICAL BOOKS

124 East 60th St.
571 West 168th St., New York
322 Henry St., Brooklyn

NEW BOOKS
FROM
THE MAYO CLINIC

ANNUAL MAYO CLINIC Vol. XXII $13.00
BUIE — Hemorrhoids and Anal Pruritus $3.50
MAYO CLINIC PHYSICIANS. Vol. II $7.00
ROWNTREE and SNELL—ADDISON'S DISEASE

(*Concluded from page 268*)

CLINICAL DIAGNOSIS BY LABORATORY METHODS. A Working Manual of Clinical Pathology. By James Campbell Todd, Ph.B., M.D., and Arthur Hawley Sanford, A.M. M.D. Seventh edition. Philadelphia and London, W. B. Saunders Company. 1931. 765 pages, illustrated. 8vo. Cloth, $6.00.

THE PHYSICAL BASIS OF PERSONALITY. By Charles R. Stockard. New York, W. W. Norton & Company, Inc., 1931. 320 pages, illustrated. 8vo. Cloth, $3.50.

FUNDAMENTALS OF DERMATOLOGY. By Alfred Schalek, M.D. Second edition. Philadelphia, Lea & Febiger, 1931. 247 pages, illustrated. 12mo. Cloth, $3.00.

MEDICAL PSYCHOLOGY. The Mental Factor in Disease. By William A. White. New York and Washington, Nervous and Mental Disease Publishing Company, 1931. 141 pages. 8vo. Boards, $3.00. (Nervous and Mental Disease Monograph Series No. 54.)

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Series 1930. Dermatology and Syphilis. Edited by William Allen Pusey A.M., M.D., and Francis Eugene Senear, B.S., M.D., with the collaboration of Max S. Wien, M.D. Urology. Edited by John H. Cunningham, M.D. Chicago, The Year Book Publishers, 1931. 474 pages illustrated. 12mo. Cloth, $2.25.
Nervous and Mental Diseases. Edited by Peter Bassoe, M.D. Chicago, The Year Book Publishers, 1931. 451 pages, illustrated. 12mo. Cloth, $2.25.

AN INTRODUCTION TO NEUROLOGY. By C. Judson Herrick. Fifth edition. Philadelphia and London W. B. Saunders Company, 1931. 417 pages, illustrated. 12mo. Cloth, $3.00.

The Periodic Health Examination

Previously and traditionally the doctor has been concerned with the layman only when he is sick. Increasingly in the future he will have to be concerned with him while he is well, and he will have to be interested in keeping him well. The kind of organization devices which we need at present are, first, those which will educate the public as to the value of the periodic health examination and will urge them to seek competent regular medical guidance; second, those which will advise the doctor as to the importance of this field, and point to the necessity for his preparation to meet the demands of the lay public for personal health inpsection and instruction; and finally, those that will furnish for medicine in general the necessary organization for the fostering of the whole range of preventive medicine. There is not the slightest doubt but that the future is going to require of medicine a considerably higher and more complicated degree of organization, not only to meet the demands of preventive medicine, but to provide the needs of medical therapy. Medicine has social as well as individual obligations. To meet those obligations more organization of some kind is inevitable, and this organization will either gradually be developed by a socially conscious medical profession, alert enough to face the situation and to seize the initiative, or it may be carried out for the medical profession, perhaps beyond its control, by lay or state forces.

Medicine is criticized today because its services are costly, because they are unevenly provided, because no devices have as yet been worked out to insure the wide application of the instruments and methods of precision in diagnosis and treatment, and because its knowledge of prevention is ineffectively applied. The extension of the practice of health examination work by physicians, and their more generous participation in preventive work, will in part meet these criticisms. As a matter of fact if preventive work is sound it has a very direct bearing on the greatly agitated problem of the cost of medical care. After all it is cheaper to prevent than to cure, and the public is rapidly finding that this applies to medicine as to other things. On the other hand should the whole range of preventive medical activities be even partially developed, there would probably not be by any means enough medical men to meet the popular needs and demands. It seems very likely that the development of a reasonable amount of remunerative work in the preventive field would more than offset the inevitable financial loss to the medical profession that would follow an extensive application of preventive effort. A large part of the current criticism of medicine can be refuted if leadership can be found in the profession to open the doors into this great new field.

The periodic health examination is therefore not only the keystone of personal hygiene. It is also a vital anchorage for the current private practice of medicine. Finally, it is the entering wedge both for the doctor and the layman into the field of the private practice of preventive medicine, and organization for its adequate promotion might even point the way to at least a partial solution of certain of the very grave social and economic organization problems with which medicine is faced today.—DONALD B. ARMSTRONG, M.D., in *N. Y. State Jour. Med.*, May 15, 1931.

Here is a Calcium—

immediately assimilable, administered orally—and that actually tastes like Chocolate Peppermint.

OLAJEN COLLOIDAL

Not an ordinary calcium with a would-be chocolate disguise, but a sound and ethical preparation utilizing a vehicle of novel form to combine calcium and other physiologic salts with lecithin in a colloidal base. Extensive clinical experience backed by laboratory tests shows that Olajen is a serviceable agent in conditions of calcium deficiency.

When the normal calcium is low,
When the patient is undernourished,
When bodily resistance must be raised,
When bronchial affections "hang on" and sap vitality prescribe Olajen. One teaspoonful to be eaten after meals and at bedtime.

Clinical results will demonstrate to you, often more rapidly than expected, that there is a definite therapeutic reason for offering Olajen in its colloidal chocolate vehicle.

Olajen contains per 8 oz.:

Calcium lactate	12 gr.
Iron phosphate	12 gr.
Sodium phosphate	12 gr.
Potassium bi-tartrate	12 gr.
Lecithin	4½ gr.

in a colloidal, nutritive base.

OLAJEN, INC.
451 West 30th St.
New York City

Perhaps there is something you need listed in the Classified!

The Treatment of Eczema

The international congress at Copenhagen, last year, made it clear that the treatment of eczema has not kept pace with new knowledge of the ætiology of this puzzling and refractory disease. But if we have no strikingly successful therapeutic novelties the present outlook on the causation has shown that the remedies of four decades rest on a sure foundation, the nature of which has been partly revealed. Writing in retrospect, J. Danier and A. Tzanck, *Presse Méd.*, Jan. 17th, p. 73, of Paris, point out that eczema must no longer be regarded as a toxiderma or an auto-intoxication. It is now "a reaction of intolerance by the skin," and if the term "reaction" is accepted and sustained as a premise, then we must also say that an agent sets the reaction going, that the subject or organism is susceptible or sensible to the agent, and that there is a latent mechanism of sensibility, either inborn or acquired. We are then in a position to attack either: (*a*) the reaction itself (the actual lesions) by local treatment; (*b*) the agent (antigen) by suppressing it; (*c*) the reacting factors of the organism (*reagines*) by inactivating them, by protein shock medication; (*d*) the mechanism of the reaction, by desensitisation; or (*e*) the susceptibility, by prophylaxis. No one will question the desirability of adopting the first procedure in almost every case; it is very necessary to soothe and by every means allay the local disturbance, and often the results are highly satisfactory and equivalent to cûre. To ascertain the cause, however, is very often difficult. It is usually evident only in cases of dermatitis due to trade or profession, and even if it is discovered it cannot always be excluded entirely from the environment or the food. In such cases the object must be to make the patient capable of normal resistance —i.e., to desensitise him either by protein shock, in which we presume to disorganize the reaction itself, by desensitisation in a specific sense, or by general preventive treatment which includes elimination of focal sepsis, autotoxæmia, hyperglycæmia, and the like.

Rest is as important in the treatment of eczema as in other diseases, and a second item is the clearance of surface contamination or crusting by moist compresses, containing bland or slightly antiseptic solutions, such as Alibour's fluid (½ per cent copper and zinc sulphate). This accomplished, we may continue with creams containing water in relatively large proportion to their fatty content and to pastes or glycerin of starch with carbonate of magenisa and talc. The details of local treatment have to be varied in almost every case, and if the diagnosis is at fault, and such conditions as epidermophytosis or seborrhœa are ignored or missed, success can scarcely be expected. Of modern substitutes for topical applications, the only one which has proved consistently useful is X ray treatment, but this should be reserved for the type of case that will respond and not be applied without discrimination. Suppression of the cause of an eczematous eruption is an ideal seldom attained, and as Darier and Tzanck remark, "is not its attainment an acknowledgment of defeat?" To forbid a baker or a polisher to continue at his trade cannot be regarded as a therapeutic triumph, even if it relieves him of his symptoms. In this connection, too, the possibility of a parasitic or mycotic ætiology must always be kept in mind, and here the regions affected will sometimes provide a valuable clue; but great caution should be used in making a diagnosis of yeast or monilia infection, for these organisms are common saprophytes.

The great majority of eczema cases fall into one or other of the ætiological categories mentioned, and much rarer are those depending on a vascular (endogenous) antigen. The only really clear-cut examples of these are the infantil eczemata which not infrequently clear up when the infant is removed from the breast and dieted on controlled foods. Nowadays it is thought important to recognize a susceptibility in early infancy, for neglect to do so exposes the patient to a risk of so-called polyvalent response in later years, and makes elucidation of the cause increasingly difficult. Desensitisation may be attempted with the actual antigen—e.g., egg or wheat protein—in minute increasing doses at stated intervals either intradermally, subcutaneously, or per os. The technique is somewhat complex, the results are by no means always constant or permanent, and serious reactions have been encountered from time to time. The non-specific protein shock methods aim at disengaging the presumed mechanisms of interaction (antigen-antibody) by introducing a foreign protein. By frequently repeating their introduction one exhausts the stock of *reagies*, and the resultant eczematous attacks along with them. The agents available in this connection vary from the mild but often successful autohæmotherapy (whole blood intramuscular injections) to intravenous injections of a typhood vaccine which has been employed in this country especially in the treatment of chronic urticaria. A simple and harmless method of this kind is the administration of peptone by the mouth before meals. but it is likely to be useful only where the provoking antigen is a protein of animal origin. On the whole, experience suggests that the safest and most generally successful of shock methods is autohæmotherapy.

The nervous system undoubtedly plays a part in the genesis of certain types of eczema, and much has been written in recent years on the importance of sympathetic and parasympathetic influences. To what extent these factors are primary is uncertain, but in vagotonic cases improvement of the symptoms can sometimes be demonstrated after administration of atropine or belladonna, while the sympatheticotonic respond to ergotamine or stimulation of the vagus action by pilocarpine, which is frequently prescribed on the continent. Where the nervous element predominates bromides are useful, and are best given by the intravenous route as 10 per cent sodium bromide, or in the well-known proprietary preparations. Occasionally brilliant results are obtained by administration of endocrine extracts, but until biochemical methods of investigation are standardized the effects will remain inconstant. An empirical remedy much favored by dermatologists at the present time is sodium thiosulphate. It is given in doses of 0.45 to 0.75 g. by the intravenous route, and the dose can be repeated daily without danger for weeks at a time. Darier and Tzanck summarize their advice under the following headings: (1) soothing and protective local treatment in all acute cases; (2) determined attempts to elucidate the cause, remembering that it may be chemical, physical, traumatic, parasitic, or microbial; (3) treatment, ad hoc, when the cause is proved; (4) elimination of focal sepsis; (5) suppression of preventable causes, as in trade or alimentary cases; (6) investigation of vagosympathetic and endocrine faults and deficiencies; (7) recognitoin of acquired or hereditary dyscrasias and substrata, such as congenital syphilis or chronic infections; (8) attempt to desensitise the patient by accustoming him to the specific antigen, or by non-specific shock methods.—*The Lancet*, March 21, 1931.

The Scope of Sedative Medication

W. Wolf, in the *Memphis Medical Journal*, May 1930, writes that he has found sedatives and hypnotics to be of the greatest importance in the treatment of symptoms of ovarian and thyroid disturbance.

"We have had more occasion to use a milder sedative and hypnotic and have found Bromural a happy medium between the bromides and barbituric acid derivatives. It usually takes effect gently and without tangible sensation of oncoming hypnosis, an important point to overcome the frequent mental opposition to taking sedative drugs on the part of the patient.

In cases of hypertension associated with the menopause, sedatives, such as Bromural and luminal, have served us very well. They control the insomnia, to a certain extent the headaches and over-excitablity of these patients, and by that in itself are capable of bringing down the blood pressure in some degree. They give one a good opportunity to study the case, apply the appropriate remedy and the more disagreeable symptoms of nervousness are relieved during the period in which casual treatment takes effect. In cases of climacteric disturbances, we believe Bromural has no equal and is to be preferred to the barbital derivatives, and to bromides."

Literature and sample may be obtained by writing Bilhuber-Knoll Corp., 154 Ogden Avenue, Jersey City, N. J.

Tonsil Infection in the Aged

Many old people have infected tonsils which are causing systemic symptoms. Obviously, most of these patients cannot be operated upon but relief from symptoms sometimes follows the regular use of suction and lavage combined.

"Behind the Office Doors."

Dr. J. Chalmers Da Costa in his address "Behind the Office Doors" states "Show me a man's library and I will tell you much of the man, of his habits, his needs, his learning, his moods, and his tendencies."

Dr. Harvey Cushing states "The SOUL of an institution that has any pretense to learning comes to reside in its library, and no less well may one gauge the quality of a medical school, of a hospital, of a laboratory, of the individual doctor himself, than by the condition of its library."

It has been often observed that the physicians who are up and doing are the men with an active up todate library. The best customers of bookstores are said to be the best known consultants, and their large libraries have helped them attain their high standing.

Through the plan in operation by T. H. McKenna, 124 East 60th Street, New York, it is an easy and inexpensive matter to gradually build up an active modern library of which you may well be proud. Through small monthly payments you may secure any book of any publisher, charge them all on one account, use the books and make them pay for themselves while you are paying us. It is a sure insurance toward the attainment of professional recognition.

DOCTORS GUIDE TO BUSINESS LITERATURE

This free service is arranged so that busy physicians need write only one letter to obtain the literature and samples of as many manufacturers as desired. The list contains the more important business literature published by manufacturers of pharmaceuticals, physicians' supplies, foods, etc. Merely list the key numbers of all publications desired and send your request to MEDICAL TIMES & LONG ISLAND MEDICAL JOURNAL, *95 Nassau Street, New York.*

ARTIFICIAL LIMBS

MT- 81 "Manual of Artificial Limbs." Copiously illustrated with 359 pages. A. A. Marks.

ELASTIC BANDAGES AND SUPPLIES

MT-119 Everything for the Sick. Roberts & Quinn, Inc.

ELECTRO THERAPEUTIC APPARATUS AND SUPPLIES

MT- 46 Catalogue of Electrically Lighted Instruments for all Diagnostic and Surgical Purposes with 76 pages. Electro Surgical Instrument Company.

FOODS

MT- 60 "The Doctor and Horlick's Malted Milk," "Horlick's Maltose and Dextrin Milk Modifier," Formula Blanks for prescribing Horlick's Milk Modifier, and Physician's Index Card of formulas for Horlick's Milk Modifier. Horlick's Malted Milk Corp.

MT- 83 (A) The Care and Feeding of Children.
(B) Nourishment for Adults and Children in Health or illness.
(C) The Source, Nature and Amount of the Nutritive Elements in Mellin's Food.
(D) Mellin's Food—A Milk Modifier.
(E) Formulas for Infant Feeding.
(F) Ulcer—Adult Feeding.
(G) A Message to Physicians. Mellin's Food Company.

MT-133 "Yeast Therapy." Based on Published Findings of Distinguished Investigators and Physicians. Standard Brands, Inc.

MT-178 "Sugar" by Beulah V. Gillaspie. A small booklet giving information on Sugar. The Sugar Institute, Inc.

MT-137 Illus. Pamphlet of Valentine's Meat Juice Company's Plant. "Valentine's Meat Juice in Influenza or Pneumonia." "Valentine's Meat Juice in Gastric or Intestinal Trouble." Valentine's Meat Juice Company.

OFFICE SUPPLIES

MT-163 CASE RECORD SYSTEM: Sample Case Record Cards for the General Practitioner or any Specialty. "The Holden System", a necessity to the scientific physicians.

PHARMACEUTICALS AND BIOLOGICS

MT- 12 Alkalol—Irrigol. Reliable remedies for destroying mucous and building up depleted cells. Literature and Samples. Alkalol Company.

MT- 14 "Crude vs. Medicinal Creosote." Arlington Chemical Company.

MT- 17 (A) Extract of Red Bone Marrow (Medullary Glyceride),
(B) Peptonal,
(C) Trypsin,
(D) Rennet or Rennin (Curdling Ferment),
(E) Ovarian Preparations,
(F) Thyroid Preparations,
(G) Peptonum Siccum,
(H) Sterile Surgical Catgut Ligatures,
(I) Concentrated Liver Extract,
(J) Elixir of Enzymes,
(K) Spleen Liquid,
(L) Lecithol,
(M) Suprarenalin in Hay Fever,
(N) Pituitary Preparations,
(O) Peptone Solution,
(P) Parathyroid Preparations,
(Q) Endocrine and other Organotherapeutic Preparations. All from Armour & Company.

MT-175 "Silver Tips"—The 6" Silver Nitrate Applicator. (A tip for each case) Sanitary and convenient. Caustic, Astringent and Coagulant. Samples on request. Arzol Chemical Company.

MT- 20 "Mazon and Mazon Soap" in the treatment of eczema and other skin disorders. Belmont Laboratories, Inc.

MT- 21 "Hyclorite," Concentrated Sodium Hypochlorite. Bethlehem Laboratories.

MT-159 "Pharmaceuticals of Established Merit", "Theocalcin—Diuretic and Myocardial Stimulant", "Pot. Iod. Theocalcin—In Stenocaraic and Asthmatic Conditions", and "Bromural—Sedative and Hypnotic." "Useful Prescription Data"; Prescription data in cases of Acne, Alopecia, Angina Pectoris, Arteriosclerosis, Ascites, Cardiac, Dropsy, Eczema, Heart Disease, Insomnia, Myocarditis, Neurosis, Pertussis, Renal Disease. "Metrazol" Clinical Report—Injected Subcutaneously or Intravenously in Surgery. Also Complimentary Emergency Kit of Metrazol Ampules. Bilhuber-Knoll Corp.

MT-166 "BiSoDol", An Unusually Palatable Form of Alkaline Medication. The BiSoDol Company.

MT- 22 "An Effective Contraceptive Method", an authoritative, copyrighted article by James F. Cooper, M.D. Copies will gladly be sent to physicians only. "Ramses Transparent Diaphragm." Detailed instructions for correct fitting of Vaginal Diaphragms. Blair & Curtis, Inc.

MT- 28 "Sal Hepatica," A Carefully Blended and Well-Balanced Effervescent Saline Combination. Bristol-Myers Company.

MT- 32 "Campho-Phenique in Major and Minor Surgery." Campho-Phenique Company.

MT- 38 "Hormotone in Disorders of Menstruation and the Menopause" and "Hormotone in Premature Senility and Old Age." G. W. Carnrick Company.

MT-167 "The Collosol in Dermatology", "Collosol Manganese", "Collosol Kaolin", "The Action and Therapeutics of Collosol Iodine" and "The Action and Therapeutics of Collosol Argentum." The Crookes Laboratories.

MT- 40 "Treatment of the Post-Encephalitic Parkinsonian Syndrome by Means of Genoscopolamine." A. Debruille.

MT- 41 "Inflammatory Processes and Their Treatment," "The Pneumonic Lung, Its Physical Signs and Pathology," "Pregnancy, Its Signs and Complications," "Infected Wound Therapy," "Gynecological Hints." All from Denver Chemical Mfg. Co.

MT- 47 "Marinol," The really agreeable Cod Liver Oil. Fairchild Bros. & Foster.

MT- 50 "A Few Notes Regarding Psychoanalysis," "The Therapeutic Value of Chemical Foods." Fellows Medical Mfg. Co., Inc.

MT-155 "Digest of Calcium Therapy", Third Edition. A vial of 100 Acidity Test papers and a full size box of Cal-Sal will be sent to interested physicians. Granger Calcium Products, Inc.

MT- 59 (A) "Roche Medicinal Specialties,"
(B) Allonal "Roche,"
(C) Larosan "Roche,"
(D) "The Romance of Digitalis,"
(E) Isacen "Roche."
(F) Pantopon "Roche."
(G) "Ye Olden Day Cough Physic,"
(H) Sedobrol "Roche,"
(I) Sedormid "Roche,"
(J) "Surgical and Obstetrical Anesthesia with Scopo-

lamine Stable,"
(K) "Ulrich's Treatment of Epileptics,"
(L) "The Regulation of Chloride-Bromide Intake in Epilepsy,"
(M) "Iodostarine Tablets for Simple Goitre,"
(N) "The Doctor Visits 'Roche',"
(O) "The Mystery of Sleep." Hoffmann-La Roche Chemical Works.

MT- 61 "Urasal," An Improved Form of Hexamethylenamine Medication. Frank W. Horner, Inc.,

MT- 70 "Hagee's Original Cordial Compound." Samples. Katharmon Chemical Company.

MT- 72 "Kojene" the Superior Antiseptic. Samples and Case Reports. Kojene Products Corp.

MT- 76 "Fresh Liver Extract," "Extracts of the Fresh Sexual Glands," "Fresh Gland Extracts," and "Pernicious Anemia in Recent Years." L. H. Lang Biological Products.

MT- 77 Important Lilly Publications:
(A) "Iletin" (Insulin, Lilly),
(B) Liver Extract, No. 343,
(C) Liver Extract No. 55 with Iron,
(D) Ephedrine Preparations,
(E) Staphylo-Jel,
(F) Para-thor-mone,
(G) Biological Therapy,
(H) Merthiolate,
(I) Gluco-Calcium,
(J) Diet Charts,
(K) Kaomin,
(L) Diphtheria Toxoid,
(M) Sodium Amytal,
(N) Amytal Preparations,
(O) Ampoules Acacia Solution,
(P) Ampoules Calcium Gluconate,
(Q) Ampoules Invert Sugar,
(R) Puerperal Serum, etc. Any one or all of the above will be forwarded to physicians postpaid on request. Eli Lilly & Company.

MT- 78 "Glyconda Lloyd's Iron and Lloyd's Hydrastis," "Glyconda," (pleasant to the taste), "Libradol," A Medicated Plasma for External Use. Lloyd Brothers, Pharmacists, Inc.

MT-150 "Glon-O-Menth"—A Stable Nitroglycerin Compound. McBerk Laboratories.

MT- 82 "Rheumatism and Arthritis" and "Metabolism as Basic background in Disease." The Mellier Drug Company.

MT- 85 Complete file of Merck literature, including
(A) Skiabaryt, X-Ray Barium Sulphate,
(B) Prophylaxis and Treatment of Pneumonia;
(C) Arsenoferratose, for Blood-Building Iron;
(D) Pyridium, in the Treatment of Pyelitis;
(E) Fibrolysin, Cicatricial Resolvent;
(F) Ichthyol, in the Treatment of Skin Diseases;
(G) Quinisal, for Grip and Colds;
(H) Peroxiods, Tablets of Magnesium Superoxol;
(I) Bronchography with Brominized Oil in Tuberculous Patients;
(J) Ephedrine Hydrochloride Merck;
(K) Iodized Oil in X-Ray Diagnosis;
(L) Erythrol Tetranitrate Merck;
(M) Digitan, a Summary of the Principles Governing the Use of Digitalis, Merck & Co., Inc.

MT- 86 "Mu-Col" a Saline-Alkaline Powder makes a most useful Antiseptic Wash. Literature and sample. Mu-Col Company.

MT- 87 Booklets on: (A) Pneumonia,
(B) The Injection Treatment of Varicose Veins,
(C) Scarlet Fever,
(D) Vaccines,
(E) Hay Fever Antigens,
(F) Poison Ivy and Poison Oak Antigens,
(G) Cerebrospinal Fever treated with Antimeningococcic Serum,
(H) Ether—Oil Colonic Anesthesia,
(I) Small Pox Vaccine,
(J) Tuberculin,
(K) Amidopyrine,
(L) Bismuth in the Treatment of Syphilis,
(M) National Vaporizer. National Drug Company.

MT- 89 "Weighed and Measured Diets." Valuable 20 page booklet for diabetic patients. The John Norton Company.

MT- 90 "Fever" Method of Introducing "The Control Factor in Reduction of Excessive Fever Temperature." Numotizine, Inc.

MT- 96 "Diagnosis of Genito-Urinary Diseases and Syphilis" by Henry I. Berger, M. D. Od Chemical Company.

MT- 97 "The Story of Olajen" and "Notes on Digestion and Absorption." Olajen, Inc.

MT-100 (A) "Sclerosing Treatment of Varicose Veins and Internal Hemorrhoids,"
(B) "Viosterol in Oil—250 D,"
(C) "Estrogen and Lipo-Lutin,"
(D) "Adrephine (Adrenalin-Ephedrine Compound),"
(E) "Parodin (Parathyroid Extract),"
(F) "The Liver Treatment of Pernicious Anemia,"
(G) "Citronin For the Treatment of Cough,"
(H) "Panteric Tablets and Panteric Compound Tablets".
(I) "Thio-Bismol,"
(J) "Pituitrin (The Original Pituitary Extract),"
(K) "Pitressin (Beta-Hypophamine),"
(L) "Pitocin (Alpha-Hypophamine),"
(M) "Gas Gangrene Antitoxin,"
(N) "Ventriculin in the Treatment of Pernicious Anemia,"
(O) "Citralka (A Physiological Antacid),"
(P) "Mycozol for the Treatment of Epidermomycosis,"
(Q) "The Sulphocyanate Treatment of High Blood Pressure,"
(R) "Parke-Davis Theelin,"
(S) "Toxoid Immunization Against Diphtheria,"
(T) "The Immunogens." Parke, Davis & Company.

MT-105 "Diagnosis and Treatment of Diseases of the Liver," "Diagnosis of Cardio-Vascular Diseases," "Diagnosis of Nervous and Mental Diseases." Three publications by Dr. Henry I. Berger, published by Peacock Chemical Company and Sultan Drug Company.

MT-107 Pineoleum, its use in Acute Coryza or Acute Rhinitis. Liberal sample. The Pineoleum Company.

MT-110 "Vera-Perles of Sandalwood Comp." and "The Circulation of Bile." The Paul Plessner Company.

MT-113 "Gray's Glycerine Tonic Comp." The Purdue Frederick Co.

MT-115 "Remogland, Its Use in Cases of Endocrine Insufficiency", "Endocrinological Features of Impotentia Sexualis." Remogland Chemical Company.

MT-127 "When the Cross Roads are Reached in Hemorrhoids (Piles)," and "Urotropin, the Intravenous Administration of the Original Formaldehyde-Liberating Urinary and Systemic Antiseptic." Schering & Glatz, Inc.

MT-180 (A) Intravenous Urography.
(B) The Peroral Effect of Follicular Hormones.
(C) Intravenous Pyelography with Uroselectan.
(D) Clinical Observations of a Potent Female Sex Hormone.
(E) Progynon—Science's latest contribution to female sex hormone therapy.
(F) Iopax—For Intravenous Visualization of the Kidneys and Ureters.
(G) Normacol—A Remedy for Civilization's Evil—Chronic Constitpation.
(H) Neutralon.
(I) Chlorylen—An Analgesic for the Relief of Neuralgic Pain of the Face, Jaw and Teeth by Inhalation.
(J) Rectal Disease and Constipation.
(K) Hormone Therapy in Ovarian Hypofunction.
(L) Niazo—A Modern Genito-Urinary Antiseptic for Oral Use. Schering Corporation.

MT-128 "Digitol," "Caprokol," "Diphtheria Antitoxin," "Super-Concentrated—Mulford," "Hexylresorcinol Solution S. T. 37." These and many others you can get literature on from Sharp & Dohme.

MT-131 Literature on "Glykeron," and "Ergoapiol (Smith)" Martin H. Smith Company.

MT-135 "Vitamexol," A Reconstructive and Scientific Builder. R. J. Strasenburgh Company.

MT-140 "Viburno," Its action upon the Genito-Urinary System, and "Table for Determining Date of Delivery." The Viburno Company, Inc.

MT-144 "Building Resistance (Guiatonic)," "Acidosis and Infection (Alka Zane)," "Imhotep—Egyptian Medicine was a Quaint Mixture of Rationalism and Magic (Agarol)," "The First Question (Agarol)," "Acidosis—A Warning Sign in Pregnancy (Alka Zane)." William R. Warner & Co., Inc.

MT-148 "Secret of our Digestive Glands," "Angostura Bitters in the Daily Practice." J. W. Wuppermann Agency, Inc.

MT-160 "Six Proven Features of Bismogenol." Pamphlet on this product for the treatment of Syphilis in all stages. Also Chemical Opinions on NITROSCLERAN for Hypertension, and EKZEBROL for Eczema. George J. Young, Inc., Distributors.

RUBBER GOODS

MT- 68 "Interstate Quality Atomizers." Interstate Rubber Company, Inc.

Perhaps there is something you need listed in the Classified!

SANITARIUMS AND HEALTH RESORTS

MT- 18 Dr. Barnes Sanitarium. A beautifully illustrated pamphlet of this Connecticut Institution.

MT- 27 "Bright Side" Sanitarium for the treatment and care of Incurables, Chronic Diseases and General Invalidism. "Bright Side" Sanitarium, Teaneck, N. J.

MT- 29 The Brunswick Home, a private sanitarium in Amityville, L. I. The Brunswick Home.

MT- 44 The Easton Sanitarium. A beautifully illustrated pamphlet of this Pennsylvania sanitarium.

MT- 49 Fair Oaks, A well known institution in Summit, N. J., directed by Dr. T. P. Prout. Fair Oaks.

MT- 55 Illustrated pamphlets of this health resort, the home of Pluto. French Lick Springs Hotel Company.

MT- 57 An illustrated pamphlet of one of Long Island's Institutions. Dr. Harrison's Sanitarium.

MT- 63 Illustrated pamphlet of one of New Jersey's Institutions. Idylease Inn.

MT- 65 An illustrated pamphlet of this well-known Goshen, N. Y., Institution. "Interpines."

MT-170 Rest Haven—A Convalescents' and Invalids' Home. Convenient to Bridgeport and New York Area. Illustrated booklet. Rest Haven.

MT-122 "Rejuvenation of Tired Business Men." Roosevelt Health Institute.

MT-125 The Ross Sanitarium. Illustrated Pamphlet of this well known Long Island Institution. Dr. William H. Ross.

MT-136 "Hospital Treatment for Alcohol and Drug Addiction." Charles B. Towns Hospital.

MT-146 Westport Sanitarium. Descriptive literature, directed by Dr. F. D. Ruland. Westport Sanitarium.

SURGICAL INSTRUMENTS AND SUPPLIES

MT-119 Everything for the Sick. Roberts & Quinn, Inc.

WATERS

MT- 55 Pluto Water—Nature's method of assisting in Habitual Constipation, disorders of the Kidneys and Gastrointestinal tract. Literature and Samples. French Lick Springs Hotel.

MT- 69 "Alkalinization—Its Indications and Attainment." A 32 page booklet. Kalak Water Company.

MT-116 "Mineral Waters Therapeutically Considered," "Health Hints for the Sedentary Worker" and "Health Hints at Home and Abroad." Hiram Ricker & Sons.

How Uncle Sam Protects Travelers

Few of us when we start off for a vacation with the children, have any idea that Uncle Sam is watching over our family's health and safety. If we are like most people we hope that our home standards of cleanliness and good housekeeping will follow us from state to state, but we also have an uneasy feeling that we have left them far behind. Thus, it may be reassuring to know that the federal government through the office of the Surgeon General, is constantly on the alert to safeguard our health through the inspection and regulation of the housekeeping details of trains and steamships.

Safeguarding the health of travelers is only one of the many problems which the Surgeon General and his aides are called upon to solve, but it is increasingly important for more and more American families are acquiring the habit of travel. In fact, so many children are travelling these days that the Public Health Service and Administration Section of the White House Conference on Child Health and Protection, of which the Surgeon General is chairman, will include the study of health laws relating to common carriers in its consideration of measures which affect the welfare of children, when the conference meets next November in Washington.

Here are some of the present regulations enforced through the office of the Surgeon General in regard to drinking water on trains and steamers:

Every six months a common carrier must secure from the United States Public Health Service a certificate approving the source or sources from which it draws its supply of water for drinking and cooking purposes. This certificate is given only after a survey and examination of the supply itself.

In vessels plying between one state and another the piping for water is likewise subject to inspection, lest the drinking water come in contact with that for washing or fire.

One more protection—and a comparatively recent one—is the regulation requiring separate compartments for ice and water in coolers. Though the ice may be made of pure water, there is always the chance that dirty hands may carry it, or that it may be set down for the moment on some dirty floor or truck.

Uncle Sam watches over our food supply too, prohibits the serving of spoiled or tainted food, whether cooked or uncooked, and has recently ruled that we must be served with Grade A pasteurized milk or with certified milk.

The law further provides that all table and kitchen utensils, including crockery and glass must be washed in boiling water and suitable cleansing material after they are used, and that refrigerators and food receptacles must be emptied and washed out with hot water and soap not less than once a week.

Personal cleanliness of the employees is secured by the requirement that they wash their hands after the use of the toilet and immediately before beginning service. To make this possible the law directs that a proper lavatory with soap and clean towels shall be provided for the employees and "kept at all times in a clean and sanitary condition," and places the responsibility for this provision upon the person in charge of the dining car or dining room.

The employees in kitchen or dining room are required to undergo a physical examination before entering on their duties, and at any other time when it is deemed desirable, and if they are found to have or suspected of having a communicable disease, they are immediately relieved from service.

The little basins into which we clean our teeth on sleeping cars are there by virtue of the law which forbids the use of the common wash basin for this purpose. The law also forbids the common towel and the common drinking cup. Most of us, by this time, realize the danger of the common towel and cup, but customs change slowly and whether we realize it or not Uncle Sam has had no small part in educating us to our present fastidiousness.

Travellers suffering from certain communicable diseases cannot be accepted as passengers in the usual way on trains or boats. It is sometimes necessary, however, for these people to travel and the law provides for this contingency by specific and stringent regulations which safeguard both the patient and the public.

The United States Public Health Service has also, at the request of the Department of the Interior, recently taken over the responsibility for sanitary conditions in our National Parks, and now inspects food and water supplies and enforces regulations regarding the disposal of wastes. With thousands of families camping with their children in our National Parks every summer, it is easy to see how necessary proper regulation of these matters is, for tourists exposed to disease through unsanitary conditions in the parks would carry infection all over the country on their homeward journey. The situation might be especially dangerous to the childhood of the nation, for our youngsters return from vacations to reenter school almost immediately, and the chances for spreading contagion would therefore be almost infinite.

By cooperating with Uncle Sam in his efforts to protect the health of our families we can be of immense service in furthering his program on Child Health and Protection.—F. W. Draper, M.D., *Assistant Surgeon General.*

Value of Research and Comprehensive Facilities

Modern medicine demands comprehensive facilities which are afforded only by extensive experimentation, a wide range of talent, a mass of experience accumulated from thousands of clinical tests. Scientific progress has brought new concepts in the treatment of disease; has given the medical profession a long list of products that bring relief from pain, promote comfort, and alleviate distress.

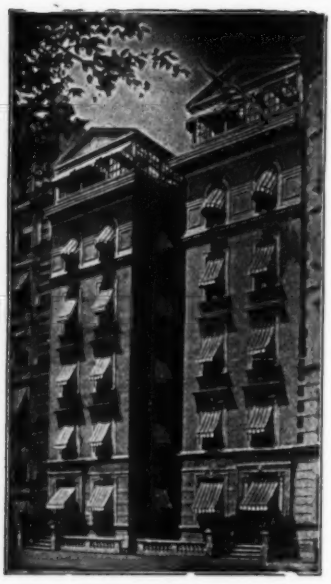
The value of research in industry has made itself felt in the many lines. It is exemplified in the medical field through the offering of Eli Lilly and Company, who were privileged to cooperate with the University of Toronto and to make available the first commercial Insulin in the United States; who synthesized and investigated a barbituric acid derivative marketed under the name of Amytal; who, through co-operation with the Harvard medical group, marketed a specific for pernicious anemia known as Liver Extract No. 343; who were pioneers in the quantity production of ephedrine products; and who after long clinical trial, presented Pulvules Sodium Amytal to the medical profession for the preanesthetic preparation of surgical cases.

Few names connected with commercial organizations command greater respect among physicians than does the name Lilly which identifies an institution in which will be found the closest affiliation of research with practice and the finest examples of the economic service of science.

Enuresis

Usher (*Canad. M. A. J.*, May 1931) believes that the psychic effect of a hypodermic injection of sterile water is a safe and valuable addition to treatment. The cases not improved by this means can in great part be relieved or cured by atropine and luminal, alone or together.

FOR ALCOHOLISM AND DRUG ADDICTION



Provides a definite eliminative treatment which obliterates craving for alcohol and drugs, including the various groups of hypnotics and sedatives.

Complete department of physical therapy. Well equipped gymnasium. Located directly across from Central Park in one of New York's best residential sections.

Any physician having an addict problem is invited to write for "Hospital Treatment for Alcohol and Drug Addiction" or reprint referring to methods used at this institution.

CHARLES B. TOWNS HOSPITAL 293 CENTRAL PARK WEST NEW YORK CITY
TELEPHONE SCHUYLER 0770 BETWEEN 89th AND 90th STREETS

The Home of PLUTO
Drink It! Prescribe It!
FRENCH LICK SPRINGS HOTEL COMPANY, French Lick, Indiana

KEEPING WELL
IS
BETTER
THAN GETTING WELL
GETTING WELL IS A CURE
KEEPING WELL IS A PREVENTION

This institution is not a hospital but a hotel correct in appointments and with every facility for convalescing patients. Those persons who have been under treatment for any particular diseases will find every opportunity here for the fine outdoor life and sports which are necessary to a successful convalescense. In addition to the mineral baths there are excellent opportunities for golf, driving and horseback riding.

The hotel has its own farm and dairy, and physicians who desire to have their patients enjoy a rest cure or put them upon a milk diet can be assured of the most careful attention to details.

French Lick is the name of Pluto, which is drunk by hundreds of thousands of people.

THOMAS D. TAGGART, *President*

"INTERPINES"
GOSHEN, N. Y.
Phone 117

ETHICAL — RELIABLE — SCIENTIFIC
Disorders of the Nervous System
BEAUTIFUL – QUIET – HOMELIKE – WRITE FOR BOOKLET
Dr. F. W. Seward, Supt. **Dr. C. A. Potter** **Dr. E. A. Scott**

(Established 1916)

"Bright Side" Sanitarium

for the treatment and care of

INCURABLES, CHRONIC DISEASES AND GENERAL INVALIDISM

Tel. Hackensack 2140 TEANECK, N. J.

Situated amidst beautiful surroundings, commanding superb views, several acres of ground, our own farm products. Offers all the comforts of a quiet and reserved home combined with the special care and treatment required in each individual case. Private rooms and small wards. Rates moderate.

Thirty-five minutes from New York City (West 125th street), half a block from Hudson River trolley line.

MAX T. BLOCHWITZ, M. Dir.
JOS. VAN DYKE, M.D., Cons. Physician

ROSS SANITARIUM, Inc.

BRENTWOOD, LONG ISLAND

For medical and surgical convalescents, chronic medical cases, and the aged

Thirty acres of lawns, gardens, and orchards

Thirty-second year of continuous operation.

TELEPHONE WILLIAM H. ROSS, M.D.
BRENTWOOD 55 *Medical Director*

REST HAVEN

BLACK ROCK
BRIDGEPORT
CONN.

CONVALESCENTS, INVALIDS.
RATES REASONABLE.

Hospital atmosphere absent. Resident Registered Nurse in attendance. Transient or permanent care of invalids and Elderly people. Detailed information and illustrated booklet on request.

MARY H. BODINE, *R. N., SUPT.*
Telephone 5—1595 BRIDGEPORT, CONNECTICUT

DR. BARNES SANITARIUM

STAMFORD, CONN.

A Private Sanitarium for Mental and Nervous Diseases also Cases of General Invalidism. Cases of Alcoholism Accepted

A modern institution of detached buildings situated in a beautiful park of fifty acres, commanding superb views of Long Island Sound and surrounding hill country. Completely equipped for scientific treatment and special attention needed in each individual case. Fifty minutes from New York City. Frequent train service. For terms and booklet address

F. H. BARNES, M.D., Med. Supt.
Phone Connection Stamford, Conn.

IDYLEASE INN

NEWFOUNDLAND NEW JERSEY

AN attractive health resort in the Copperas Mountains of Northern New Jersey conducted for the comfort of our guests. Although only forty-six miles from New York City the wild scenery and pure air are equal to those of the distant Adirondacks. Broad, shady lawns and quiet groves offer rest for those requiring a change, for semi-invalids, for convalescents and for those whose nervous systems have been overtaxed. The Hydrotherapeutic Department is under direct Medical supervision. The Management reserves the right of exclusion.

Illustrated literature will be sent upon request.
Telephone—21 Newfoundland

D. E. DRAKE, M.D., Medical Director
H. H. CATE, M.D., Associate Director

The WESTPORT SANITARIUM

WESTPORT, CONN.

For Nervous and Mental Diseases

Accommodates 100

Terms Moderate

60 Acres Private Grounds

Address

DR. F. D. RULAND, Westport, Ct. { N. Y. Office, 121 E. 60th St. 1st and 3rd Wednesdays.

Montague Hospital for Intestinal and Rectal Ailments

Hemorrhoids Medically Treated in Selected Cases

SPECIAL FACILITIES FOR:

1. Radium Treatment for Cancer of Rectum
2. Non-Surgical Treatment of Selected Cases of Hemorrhoids
3. Conservative Treatment of Fistula-in-Ano
4. Thorough Rectoscopy
5. Xray Study of Colon

36th STREET
JUST EAST OF
LEXINGTON AVENUE
NEW YORK CITY

Perhaps there is something you need listed in the Classified!

Elimination in obesity

The French Lick Springs Hotel

America's Greatest Spa

Crounotherapy	Balneotherapy
Heliotherapy	Massotherapy

Our Medical Director will cheerfully cooperate with the family physician in taking special care of his patients.

PLUTO WATER due to its valuable mineralization gives excellent results in the treatment of impaired function of the secretory organs; and of dysfunction of the ductless glandular system.

It stimulates to normal functional efficiency the action of the liver, of the kidneys, of the pancreas and of the entire gastrointestinal tract.

OVERWEIGHT and OBESITY are scientifically treated here, according to the special pathology behind the ailment; diet, elimination, exercise and the ductless glands all receive scientific study in planning *a reduction* cure. Many physicians refer their OBESITY cases directly to FRENCH LICK SPRINGS for our special reduction treatment.

Literature, diet lists and samples of PLUTO WATER gladly sent to Physicians on request.

French Lick Springs Hotel Company, French Lick, Ind.

Eruptions of the Auditory Meatus

The external auditory meatus is a tract of common land whose oversight is claimed by otologist and dermatologist. The views of both overseers were heard at the Royal Society of Medicine on May 1st, when Mr. A. R. Tweedie took the chair, and Dr. H. W. Barber spoke on eruptions involving the meatus. Dr. Barber classifies such eruptions into those due to external infections, those due to infective organisms reaching the skin through the blood stream, allergic conditions, and those due to the involvement of cutaneous nerves or nerve ganglia; a few conditions such as nævi, new growths, verruca vulgaris, and acanthosis nigricans cannot be classified under any of these groups.

The first group includes eruptions due to pityrosporon, the pyogenic cocci, and the acne bacillus, the tubercle bacillus, and fungi such as monilia, saccharomyces, and aspergillus. If the skin becomes sensitized to one of these organisms it is possible to confirm the diagnosis by intradermal injection of an emulsion of the causative organism, both a local and a focal reaction developing in the course of few days. Infection with pityrosporon produces first a seborrhœic dermatitis which passes on to eczematisation and to secondary infection, usually with *Staphylococcus aureus* or *Streptococcus longus*. The treatment, Dr. Barber considers, should include the infected scalp; a campaign against the uncleanliness of hairdressers might help to reduce the incidence. The acne bacillus gives rise to comedos and pustules in the meatus, and staphylococcal infections to boils and eczema. Streptococcal infections once acquired are extremely persistent and characterized by fissure formation in the folds of the skin; the angle of the retro-auricular fold appears to be a favorite site. The adoption of a parasitic mode of life by these organisms was fovored. Dr. Barber said, by a seborrhœic condition of the skin, particularly in the cases of pityrosporon, the staphylococci, and the acne bacillus. Moisture favored the growth of monilia, infection with which was common on the fingers of washerwomen and barmen whose hands were continually wet. Where the resistance of the epidermis had failed, especially against invasion with streptococci, the production of antibodies could be stimulated by the intradermal injection of graded doses of a vaccine made from the causative organism. When a local reaction to this treatment ceased to occur it was usually found that the resistance of the skin had conquered the infection.

Mr. T. B. Layton believes that moisture predisposes so strongly to the infection of the meatus that he has abandoned the use of watery ear drops for middle-ear suppuration in favor of applications made up with spirit or glycerin. He considers that treatment is carried out more effectively if undertaken by the patient himself, and finds that children as young as 6 years of age can become expert in mopping out their own ears. His view that watery applications should be abandoned was shared by Mr. E. Watson-Williams, but Mr. L. Graham Brown considers that syringing is invaluable for removing debris, after which applications of glycerin or spirit can be used with more hope of success.—*Lancet*, May 9, 1931.

Collosol Manganese

The introduction of Collosol Manganese has placed in the hands of practitioners an effective, reliable, relatively easy method of combating furunculosis and deep-seated coccogenic affections.

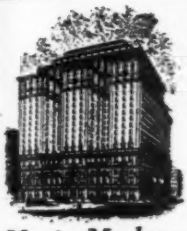
It has been demonstrated that manganese is one of the elements occurring in the tissues, organs and bones. Its detection, as a normal constituent of the blood, led to the conjecture that it might act similarly to iron as a reconstituent of the blood, This belief has now been proved experimentally to be well-founded.

Collosol Manganese contains manganese, 1-400 protected by an emulsoid colloid and other organic substances so that there is no danger of precipitation on addition to the blood plasma.

It is desirable to inject the manganese directly into the blood stream for the rapid stimulation of anti-body formation. Since the blood contains carbonates, bicarbonates and phosphates the introduction of a soluble manganese salt would cause precipitation of the manganese in an insoluble form with the possibility of a serious reaction. It is essential, therefore, to have a source of manganese which is free from this objection. Collosal Manganese, which has been widely used over a period of many years, has been found to be perfectly safe when injected and is almost totally free from the pain and discomfort attendant on the injection of solutions of manganese salts.

A Regrettable Handicap

No health department now has, nor can it hope to have, sufficient funds to finance all health work.—Allan J. McLaughlin, M.D., in "Public Health Administration."



ROOSEVELT HEALTH INSTITUTE

SIDNEY WINTERS, M.D.
Medical Director

I. L. WINTERS
Physical Director
Athletic Coach at Yale for 20 Years

Most Modern Institute of Its Kind

A fully equipped GYMNASIUM, ZANDER ROOM for Passive Exercises, PHYSIO-THERAPY DEPARTMENT with latest Ray Lamps, HYDRO-THERAPY DEPARTMENT for Turkish Nauheim, Sitz, Scotch, Douche and Spout Baths; Electrical Cabinet Baths; DIATHERMY, COLONIC IRRIGATIONS; Tiled SWIMMING POOL, filled with continually-changing Chlorine Filtered Water.

Under Same Management Winter's Health Inst. Hotel Taft, New Haven, and New Life Health Farm, West Haven, Conn.

THE ROOSEVELT HOTEL MADISON AVENUE AND 45th ST. NEW YORK, N. Y.

BREEZEHURST TERRACE

Dr. Harrison's Sanitarium

For Nervous and Mental Diseases and Alcoholics

Spacious Lawns, Beautiful surroundings. 30 Minutes from Penna. Station, New York City

For particulars apply to

Dr. S. EDWARD FRETZ
Physician in Charge

WHITESTONE, L. I., N. Y.
Phone FLushing 9—0213

THE BRUNSWICK HOME

A PRIVATE SANITARIUM

Incorporated 1887

Dr. C. L. Markham, *Medical Supt.*

TREATMENT AND CARE OF CONVALESCENTS—POST-OPERATIVE AND HABIT CASES—AGED AND INFIRM PERSONS AND ALL OTHER CHRONIC AND NERVOUS CASES.

No Insane Cases Received
Special Department for Teaching and Training of Mental Defectives
Licensed by New York State Commission for Mental Defectives

BROADWAY AND DIVISION AVE.
AMITYVILLE, LONG ISLAND
(One Hour's Ride from New York City) 'Phone Amityville 71-72

STAMFORD HALL

STAMFORD, CONN.

PHONE, STAMFORD 3—1191

A private sanitarium for the scientific treatment of nervous and mental diseases, drug addiction, alcoholism, and general invalidism. Fifty minutes from Grand Central Station, New York City, via New Haven Railroad. New and attractively furnished rooms and suites with bath for patients desiring exclusive accommodations and special nursing.
Modern facilities in hydro, electro and physiotherapy. All branches of occupational and diversional work carefully prescribed.
Special facilities for the aged and infirm.
Frequent entertainments including motion pictures, radio-programs, musicals, lectures and amateur theatricals.
Reports sent regularly to recommending physicians and relatives.

Information and booklet, furnished upon request.

MEDICAL DIRECTOR
FRANK W. ROBERTSON, M. D.

FAIR OAKS SUMMIT, N. J.

FOR the care and treatment of nervous affections, neurasthenia, states of simple depression, exhaustion states and cases requiring rest, dietetic and occupational treatment.

Insane and tubercular cases not accepted.

The Occupational Department is newly housed and equipped. Summit is located in the beautiful hill country of New Jersey, on the D. L. & W. R. R., twenty miles from New York City.

The Institution is fully equipped with means for physical therapeutics.

Phone 143 Dr. T. P. PROUT Summit, N. J.

The Easton Sanitarium

Easton, Pennsylvania

Licensed 35 years

A PRIVATE INSTITUTION for the care and treatment of nervous and mental disorders, conditions of semi-invalidism, aged people and selected cases of drug addiction and alcoholism. Homelike atmosphere; personal care; outdoor recreation and occupation year round; delightfully located overlooking the Delaware River and the city of Easton; two hours from New York City; 68 miles from Philadelphia.

For booklet and particulars address

Medical Director, DR. S. S. P. WETMORE
or phone 166 Easton

Calcium in Delicious Form

The product, Olajen, which is a most delicious product and at the same time contains calcium, iron and so forth, has been put to a most severe test, both here and abroad. It has gained the support of hundreds of physicians who have sent in reports on thousands of cases.

Its delicious taste makes it a wonderful product for children in cases of rickets, mal-nutrition or nervousness. It has proven itself in neurasthenia and especially in those cases where the patient is under weight or has bronchial condition.

We are happy to announce that the owners of Olajen, Inc., are very satisfied and are willing to let their product speak for itself. They will be glad to send you complete literature. Write to Olajen, Inc., 451 West 30th St., New York City.

Brain Tumor in Children

Vomiting, headaches and choked disc are the main symptoms of this condition. In children it is necessary to bear this in mind.

DR. KING'S HOSPITAL and CLINIC

BAY SHORE, LONG ISLAND

A COMPLETELY EQUIPPED MODERN HOSPITAL FOR

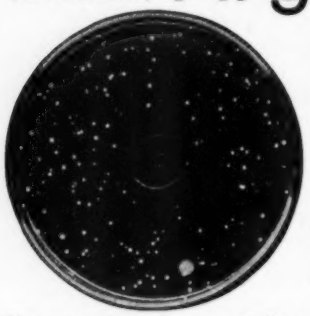
ACTIVE MEDICAL AND SURGICAL CASES AND OBSTETRICS

AN IDEAL RETREAT FOR UNFORTUNATE YOUNG WOMEN DESIRING COMPLETE PRIVACY.

SPECIAL DEPARTMENT DEVOTED TO INDUSTRIAL SURGERY.

George S. King, M. D. Chief Surgeon — Frances I. Maher, R. N. Supt.
James E. Muncie, Obstetrician. — Frank E. B. McGilvery, M. D. Assoc. Physician & Surgeon

Collosol (CROOKES) Argentum



PENETRATING ANTISEPTIC

A stable suspension of Colloidal metallic Silver 1-2000

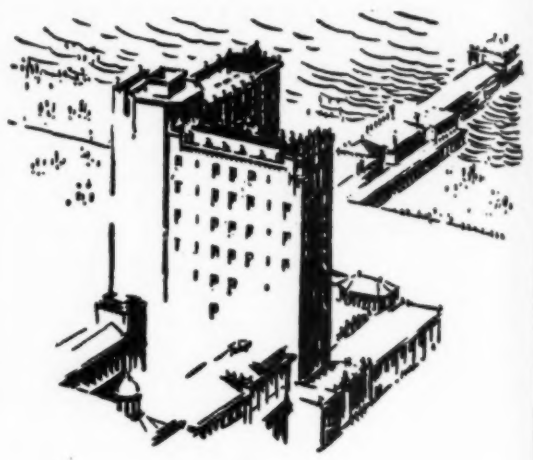
THE AGAR CUP PLATE TEST

Collosol Argentum 0.5c.c. plus B.E. Agar, Horse Serum, and Staphylococcus Aureus.

The central dark zone indicates the penetrating and germicidal properties of Collosol Argentum. Collosol Argentum is non-irritating and does not stain.

In vials for local application. In ampoules for injection.

CROOKES LABORATORIES
INCORPORATED
145 EAST 57th STREET NEW YORK CITY



You will enjoy living at the Seaside because it is above everything else, a hotel accustomed to receiving and entertaining persons who know the niceties of fine living.

Rooms with meals as low as $6.00 per day.

SEASIDE HOTEL
Atlantic City
COOK SONS CORPORATION

Laboratory Service

The Colosi Pathological Laboratory, 306 East 116th Street, New York City, is in a position to render accurate, prompt and reliable laboratory service to physicians, groups and sanitaria—at moderate fees. The Wassermann Test is done with great accuracy using two antigens: plain alcoholic and cholesterinized. Containers, fee list, etc. will gladly be supplied on request to this Laboratory.

Fee Collecting Without Impairing Friendly Relations

A collecting system that is really efficient without impairing or destroying thef riendly relations that might exist between the physician and his patient, is being successfully conducted by the Veritas Finance Corporation, of Huntington, Long Island.

It lists among its members Willoughby C. Pendill, M. C., Surgeon, Huntington, L. I., N. Y., a director of the corporation and vice-chairman of its medical advisory board, who has been largely instrumental in shaping its initial policies; also to Wm. H. Ross, M. D., Brentwood, L. I., N. Y., President of the Medical Society of New York State and chairman of the medical advisory board of the corporation; also E. Raymond Hildreth, M. D., Surgean, Bay Shore, L. I., N. Y. Its growth and shaping along proper lines has also been greatly advanced through the constructive criticism of many of the members of its advisory board. The development and detail work of the organization, and business of the corporation has been under the management of Mr. Clyde D. Knapp who has been actively engaged in various branches of banking for the past forty years. Mr. Knapp is chairman of the board of directors of the corporation.

In a word, the organization and growth of the corporation is the direct effort on the part of an ever growing group of physicians on Long Island to create an organization, a financial secretary, so to speak, to systematize and care for the financial end of their business as physicians on a practical and efficient basis, just both to themselves and their patients.

It renders service to its Advisory Board Members *only*.

It finances the collection of their old accounts.

It discounts notes of financially responsible persons receiving service and/or supplies from them.

It furnishes them with credit information.

It furnishes daily reports to them, of the progress of its work in financing the adjustment and collection of their accounts.

It makes monthly reports in detail of all collections made and remits the amount thereof due to its members on or about the 15th day of each month.

It assists its members without charge in an advisory capacity in vital matters concerning their accounts.

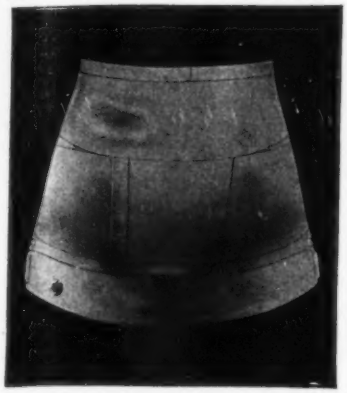
A New Stigma of Congenital Syphilis

G. K. Higoumenakis, over a year ago, noticed that the sternal end of the right clavicle was enlarged in many patients in whom congenital syphilis was suspected, so he began to examine the patients of the polyclinic systematically for this sign. The sign was found frequently among 1,500 patients examined, but there were 23 cases in which it was absolutely characteristic and beyond doubt. In 7 of these cases there were other positive stigmata, and the Wassermann reaction was positive. In the other 16 cases the Wassermann was a negative, which happens frequently in congenitl syphilis, but there were other stigmata of congenital syphilis. These 16 cases are described, and the associated stigmata in each case given. The cases show that enlargement of the sternal end of the right clavicle is as definite a sign of congenital syphilis as the other known stigmata, and it occurs more frequently than the others. It is never found in normal individuals or patients with acquired syphilis. The sternal ends of both clavicles consist of connective tissue that is soon transformed into bone tissue, and not of cartilage like the outer two-thirds of the clavicle and the rest of the bones of the skeleton. The spirochetes settle in lymphatic regions and in connective tissue. On movement of the arm, particularly the arm that is most used, there is constant irritation of the sternal end of the clavicle, and the spirochetes that have settled there are activated by the chronic irritation, causing a chronic periostitis. In 13 cases in which the patients had enlargement of the sternal end of the left clavicle, all were left-handed. The enlargement of the end of the clavicle is not caused merely by use, as otherwise it would occur in all right-handed individuals. It does not occur unless there are spirochetes present.—*Deutsche Ztschr. f. Nervenh.*, 1930, 114: 288.

Brain Tumor

A choked disc is not always found in this condition. A child who has persistent vomiting and headaches, even without eye disturbance, should be suspected of having a brain tumor.

Have you seen the Doctors' Guide to Business Literature?



"STORM SUPPORTERS"

This special KIDNEY MODEL is designed to meet the demand for high local compression immediately below the replaced kidney, combined with general abdominal support.

STORM SUPPORTERS give excellent results for Ptosis, Hernia and Sacro-Iliac Relaxation.

ABDOMINAL SUPPORTER CO.

47 West 47th St. BRyant 9-6157 New York

Sole manufacturers in Greater New York for Dr. K. L. Storm, *Patentee*

CACTINA PILLETS

A product of Mexican Cactus Grandiflorus—made from fresh, green drug.

Considered by many physicians a safe cardiac tonic when the musculo-motor action of the heart requires strengthening or guarding.

Dose: One to three pillets

Samples to Physicians only

Manufactured in the laboratory of

SULTAN DRUG CO. St. Louis, Mo.

He Has Two Good Legs

BOTH MADE BY MARKS

Although a man may lose both his legs, he is not necessarily helpless. By using artificial legs of MARKS PATENT he can be restored to usefulness.

Over 60,000 made and sent to all parts of the world.

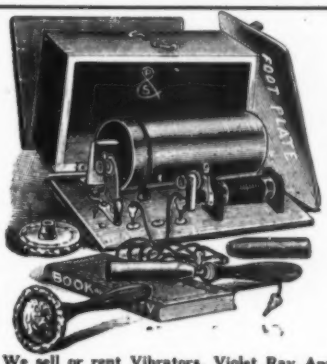
Purchased by the United States Government and many Foreign Governments

Send for **MANUAL OF ARTIFICIAL LIMBS**, containing 300 pages, with 600 cuts. Instructions are given to take measurements and obtain artificial limbs without leaving home.

A. A. MARKS, Inc.

90 Fifth Avenue New York, U.S.A.

Established 73 Years



THE FARADIC BATTERY

A Medical Apparatus of long proven efficiency.

$9.60

We sell or rent Vibrators, Violet Ray Apparatus, Sunlight Lamps, Infra red Lamps. TRiangle 5-3234

ROBERTS & QUINN Inc. 339 BRIDGE STREET BROOKLYN, N. Y.

The Paul Plessner Co.
Detroit, Mich.

.... *a dependable Cholagogue*

TAUROCOL

(Torocol) TABLETS

Manufactured especially for physicians' prescriptions and for dispensing purposes.

Bile salts with cascara sagrada and phenolphthalein.

INDICATIONS: Hepatic Insufficiency, catarrhal jaundice, gallstones, auto-intoxication.

DOSAGE: 1 tablet t. i. d.

Where there is much digestive disturbance, the use of our COMPOUND TAUROCOL TABLETS is recommended—because they contain Pepsin, Pancreatin and Nux Vomica.

The Paul Plessner Co., Dept. M. T.
3538 Brooklyn Ave., Detroit, Mich.

Please send samples.

..... M.D.

.....

.....

Have you seen the Doctors' Guide to Business Literature?

Indispensable Uses of Narcotics: Abuse of Narcotics

Bernard Fantus, Chicago (*Journal A. M. A.*, May 16, 1931), defines narcotics as agents that lessen the relation of the central nervous system to external as well as internal conditions of the body. They act by freeing the mind more or less from the thraldom of the senses, and therein lies their value as well as their danger. It is the "ease and ignorance" with which one may be relieved of a great multiplicity of symptoms by means of narcotics that makes their use an ever present temptation to patient and physician alike; and it is only by patients foreswearing self-medication and by physicians adopting certain definite rules regarding their employment that the abuse of narcotics can be guarded against. Thus, narcotics should never be employed to remove a diagnostically indispensable symptom. True, as Cushing says, it should not be necsesary to make "the diagnosis at the expense of exhausting pain." Nevertheless, the principle stated should stand as a declaration that, when symptoms are removed by a narcotic, the physician assumes the responsibility of supplying other guiding phenomena, such as temperature, pulse rate, leukocyte count and the observation of stools, to take the place of those obscured. It is the free and easy use of the morphine hypodermic to kill all kinds of pain and then forget about the case that cannot be condemned too strongly. The danger is that the giving of narcotics may lead to neglect of the really important treatment. It must be admitted that, next to the giving of cathartics, there is nothing else that has led to so many deaths from acute appendicitis as the giving of narcotics. Do away with the excruciating pain, which would have kept the patient from any notion that might in the least increase the tension in the appendix, and these very movements, now painlessly performed, may rupture the appendix and convert a simple appendicitis, from which no one should die, into a case of peritonitis, one of the most fatal of diseases. The fallacious improvement that a narcotic produces may lead to delay in operation and thus become a direct cause in the higher mortality of the late as compared with the early operation for appendicitis, strangulated hernia or intussusception. Less obvious, though no less certain, is the fact that the popular use of the so-called fever narcotics and of stupefying agents, such as liquor, to enable one to keep up and go about when one has a febrile cold and should be in bed, leads to all sorts of complications, from sinus disease to pneumonia, from rheumatism to nephritis. People must be made to realize that, when micro-organisms of disease have invaded the body to the extent of producing fever, a struggle for supremacy is on: the fittest will survive, either man or microbe. Fever is equivalent to a general mobilization of available military forces in an invaded country. Suppress the fever and its symptoms, cancel the call to mobilization in the face of such invasion, and the enemy invades triumphantly and disastrously. Nothing is easier than to remove the results of fatigue—headache, backache, nervous irritability, insomnia—by narcotics; nothing is worse, unless the fatigue is due merely to temporary overexertion. When the excessive strain is habitual and the demand for the relief of its ill effects also becomes habitual and is gratified, one is driving head-on to a serious wreck. A rest treatment is needed, not dope. A useful reaction of the body to disease must never be abolished by narcotics. Thus, cough is in most instances an important means of effecting drainage from the bronchial tree. Stop the cough and the micro-organism-laden discharge, instead of being expectorated and thereby rendered harmless, stagnates and becomes more and more poisonous and damaging to the bronchial wall. The result is that a bronchitis that might have healed in a few days under more physiologic treatment may require weeks and months. Indeed, the lumen of bronchioles may become stopped up with secretion—and this is more likely to happen in the tiny bronchioles of small children—the tributary lung lobules undergo atelectasis from absorption of the air within, and this may be followed by extension of the inflammation into them; thus a case of bronchitis may be converted into bronchopneumonia. Diarrhea is another sypmtom that must generally not be suppressed by opiates. The diarheal discharges from the bowel carry away quantities of material that become highly toxic when retained, not only to the system at large but also to the bowel wall itself: thus a simple diarrhea may become converted into a catarrhal or even an ulcerative enterocolitis; and, instead of days, it may take the patient weeks and months to get well. Formation of habit should be the ever-present specter to inspire fear of prescribing narcotics in chronic or recurring ailments, unless there are malignant conditions or limited tenure of life to make the habit relatively unobjectionable. Especially should physicians, dentists, nurses and pharmacists make it their inviolable rule never to prescribe narcotics for themselves: for from among these classes is recruited a large contingent of those who become afflicted with the habitual use of narcotics. Some narcotics, as opiates and alcohol, are intrinsically habit producing. They operate in creating the notorious craving, partly by being most efficient antagonists to the disagreeable after-effects produced by the agent itself, and partly by causing mental deterioration. But all narcotics are liable to be habit forming, by reason of their very efficiency in relieving symptoms and their inability really to cure any disease. Therefore, as soon as the effect of the agent wears off, the original condition asserts itself, demanding relief. Whenever, therefore, a narcotic is employed, it should merely be as an adjunct to the real curative treatment. It is only when cure is impossible that the narcotic habit may be a lesser evil than unrelieved suffering. In any case, an extensive range of knowledge of the may available narcotics should permit a choice of the least objectionable and yet most efficient agent for the particular patient to be relieved; and opiates should be appealed to only as a means of last resort.

Viburno (Beach)

Have you noticed, at the end of a hot humid day, the tired, worn-out and exhausted condition of the women hurrying home from business? To many of them it seems that these "hottest spells of the season" come just in time to coincide with their menstrual period. Normally this would be distressing enough. To those suffering from dysmenorrhea it becomes unbearable, and after trying all the "Cure all" antipyretics and analgesics advertised in the daily papers, they finally seek something more than temporary relief at their physician's office. Generally in these cases the use of Viburno is indicated. As a uterine tonic it increases the circulation through the pelvic organs, restores the normal functioning of the musclature, and decreases existing congestion. It may be prescribed concurrent with symptomatic treatment, or itself combined with vegetable tinctures to suit the specific case. Prescribe an original eleven ounce bottle of Viburno (Formula of Dr. J. C. Beach), the dose being a dessertspoonful T. I. D. Continue its use for a month. The results will be exceptionally gratifying to both the patient and the physician. Stubborn cases of dysmenorrhea, cases of long standing, may be found in which only improved tonicity is evidenced, but most of these will yield to continued treatment. When prescribing specify Viburno (*Beach*). Complete literature will be sent upon request to the Viburno Company, Inc., 146 Front St, N. Y.

The Early Diagnosis of Extrauterine Pregnancy

Samuel R. Meaker calls attention to the fact that, while the classical picture of early ectopic gestation is well defined, extrauterine pregnancy may present very variable symptoms and signs, often atypical, and sometimes closely simulating other conditions. It may be confused with miscarriage in early uterine pregnancy. In both conditions the history includes a missed period followed by spotting or staining; typical disturbances in breasts, stomach, and bladder; and a certain amount of pain. In both, the examination may reveal a large, soft uterus and some degree of pelvic tenderness. Any type of pelvic inflammatory disease may give rise to irregular staining, gastric and vesical symptoms, lower abdominal pain, enlargement and softening of the uterus, local tenderness, and to masses at the side of the uterus or in the posterior cul-de-sac. The coexistence of pregnancy and inflammatory disease occasionally produces a clinical picture almost identical with that of early ectopic pregnancy. Torsion of the appendages may suggest ectopic pregnancy. On the other hand extrauterine pregnancy may present an atypical picture. In about 35 per cent of these cases there is no history of a missed period. Mammany, gastric, and vesical symptoms may be absent, or only such as the patient customarily notes before menstruation. Frequently the gravid tube cannot be recognized by palpation. Special diagnostic aids, such as the past history, the temperature, the white blood count, the sedimentation test, the Aschheim-Zondek test for pregnancy, Cullen's sign, ether examination, and posterior colpotomy, are of limited value. In the suspected case the closest attention should be given to the character of the pain. In the early case pain is irregular in occurrence, severe in degree, and sharp in character, and often radiates to the shoulder, the back, or the thighs. Many patients complain that it hurts them to sit down. The sharp, severe attacks are frequently accompanied by weakness or faintness. If obvious acute inflammation is not present, then any great pelvic tenderness, aggravated by movement of the uterus, is highly suggestive of extrauterine pregnancy. In the early case a short period of observation often serves to clarify the diagnosis.—*New England Journal of Medicine*, February 12, 1931, cciv, 7.

Protecting the Posterior Urethra

In gonorrhea, the acute case seen early will benefit perhaps more than any other by the simultaneous use of local measures and Sanmetto by mouth. Sanmetto passing through the posterior urethra creates a milieu unfavorable to pathogenic invasion and raises resistance. In the anterior urethra, the site of immediate infection, it relieves pain, soothes the inflamed tissues and supports more energetic local agents.

Perhaps there is something you need listed in the Classified!

Doctor, Accept This Free Trial of Cal-Sal Wafers Vial of 100 Acidity Test Papers, and a Copy of "Digest of Calcium Therapy" 3rd Edition

INDICATED IN CASES OF

CALCIUM DEFICIENCY

CAL-SAL contains 17% Calcium Glycerophosphate, Calcium Tribasic Phosphate, Calcium Carbonate (5%—3% and not less than 9% respectively) 1/8000 ferrous lactate and 1/5000 potassium iodide, with powdered sucrose, starch, glycose, gum and about 2% of nucoa butter sterilized with ultra violet rays, and viosterol to give each wafer thirty Vitamin D units. CAL-SAL is also obtainable in paste form for children.

CAL-SAL may be prescribed as a pleasant, assimilable and safe alkaline, and as a supplement for any calcium deficiency noted, or probable as in the case of expectant or nursing mothers and as a daily diet alkaline balancer.

GRANGER CALCIUM PRODUCTS, Inc.

Mfrs. of Cal-Sal; Mints and Toffees containing Calcium, and oatmeal with a strong alkaline ash.

1306 AVENUE H BROOKLYN, NEW YORK

GRANGER CALCIUM PRODUCTS INC.
1306 AVENUE H, BROOKLYN, N. Y.

PLEASE SEND ME WITHOUT OBLIGATION:
VIAL OF 100 ACIDITY TEST PAPERS.
FULL SIZE BOX OF CAL-SAL.
"A DIGEST OF CALCIUM THERAPY," 3rd EDITION.

DR. .....

ADDRESS .....

GEO. J. YOUNG, INC.

PHYSICIANS SUPPLIES

TRUSSES AND CORSETS.
ABDOMINAL SUPPORTERS.
ELASTIC STOCKINGS.
LEG AND SPINAL BRACES.
SURGICAL INSTRUMENTS.
BIOLOGICAL PRODUCTS.
INVALID CHAIRS AND BAKING MACHINES, SOLD AND RENTED.

B'KLYN AND L. I. DISTRIBUTORS OF EKZEBROL, NITRO-SCLERAN—BISMOGENAL. PRODUCTS OF E. TOSSE & CO., BROOKLYN, N. Y., AND HAMBURG, GERMANY.

850 BROADWAY
BROOKLYN, N. Y. PHONE PULASKI 5-1500, 1501

FOR VAGINAL PROPHYLAXIS

THREE ETHICAL PRODUCTS

Ramses — Reg. U.S. Pat. Off. — *Exclusively for physicians*

The original genuine transparent diaphragm pessary. 9 sizes, in standard low dome or special high dome.

GELAKTA

Lactic acid jelly (Cooper) developed thru years of clinical experimentation covering thousands of patients.

GELAQUIN

"Gelakta" + Oxyquinolin = Sulphate.

These jellies are widely used with "Ramses" and may be used alone with sanitary glass nozzle applicator.

WRITE FOR LITERATURE.

Blair & Curtis Inc. — B&C PRODUCTS — 100 Fifth Ave. New York, N. Y.

ELECTRICALLY LIGHTED SURGICAL INSTRUMENTS

E. S. I. Co.

The Mark of Accuracy and Dependability

E. S. I. Co.

Electrically lighted diagnostic and surgical instruments, manufactured by pioneers in this field, meet satisfactorily the demand for practicability, safety, and efficiency in Eye, Ear, Nose, Throat, Bronchial, Genito-Urinary, and Rectal work. Each is carefully designed, inspected, and tested to insure long and satisfactory service. Write for a free copy of Catalog No. 10 which illustrates and describes many interesting instruments.

ELECTRO SURGICAL INSTRUMENT COMPANY
ROCHESTER, N. Y.

Remogland

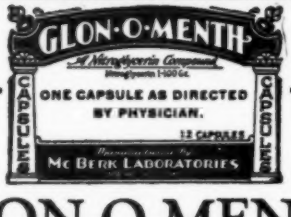
INDICATED IN

GENERAL NEURASTHENIA
HYPOCHONDRIA
EUNUCHOIDISM
IMPOTENTIA SEXUALIS

TABLETS AND AMPOULES

May we send you literature? Masculine Feminine

REMOGLAND CHEMICAL CO.
25 WEST BROADWAY NEW YORK, N. Y.



GLON-O-MENTH

Stable Nitro-Glycerine Compound hermetically sealed in soft gelatin capsules.

Useful in all conditions associated with Hypertension, Arteriosclerosis and related Vascular diseases. For Instantaneous Relief as in Angina Pectoris. Inhalation obtained by biting into capsule.

Sample and literature gladly sent.

McBERK LABORATORIES, Jamaica, New York

SAL HEPATICA

A Carefully Blended and Well-Balanced Effervescent Saline Combination.

Materially aids in the correction of alimentary toxemias by thoroughly cleaning the intestinal canal.

Laxative or active cathartic according to dosage.

Samples for clinical trial.

BRISTOL-MYERS CO.
New York

CHIONIA

A preparation of Chionanthus Virginica.

A mild Cholagogue and Hepatic Stimulant for use in Hepatic Disfunction. Stimulates bile flow, diuresis and intestinal activity.

DOSE: One to two fluid drachms

Samples to Physicians only

Manufactured in the laboratory of

PEACOCK CHEMICAL CO. St. Louis, Mo.

Antiphlogistine
TRADE MARK

THE PERFECT DRESSING
For the Relief of Inflammation and Congestion
Denver Chemical Mfg. Company,
New York, N. Y.

Acute Appendicitis

Both in diagnosis and treatment abdominal surgery has made great advances during the last 20 years but, judging by results, acute appendicitis has not been taking its proper share in this improvement. While estimates vary, there is general agreement, both here and in America, that the mortality is unnecessarily high. E. R. Flint gives it as 5.7 per cent. in a group of 1080 cases at Leeds General Infirmary; McNeill Love's figures show a death-rate of 6.2 per cent. among 3123 cases treated in two London teaching hospitals; Jeff Miller finds 9.9 per cent. of fatal cases among 2415 admitted to the two largest institutions in New Orleans. Grey Turner, on the other hand, is able to report a mortality of 3.5 per cent. among 2252 cases of his own, and there can be little doubt that even this proportion could be much reduced if the knowledge in our possession were generally applied. The organization and provision for dealing with surgical emergency in municipal and urban districts is improving; hospital accommodation is more adequate; but there is still need of a compelling sense of the urgency of acute appendicitis. The truth has been a little fogged by expert discussions on expectant treatment but, in fact, as Mr. Barrington-Ward says, "the whole surgical opinion of the world is agreed on one point. If a case of appendicitis is seen within 24 hours of the onset of the attack, operation should be undertaken." There are, indeed, no two opinions on the treatment of acute appendicitis; authorities differ only on the treatment of the *peritonitis* which may result from failure to remove the appendix in time. The best moment for operation has then passed and it is these cases that account for the high mortality. Therefore, no effort should be spared to secure that every case is seen by a surgeon and submitted to operation within 24 hours of the onset.

"Earlier diagnosis" is a cry one hears on every hand in surgery and medicine, but never with better cause than in acute appendicitis. Every case which goes on to perforation should be regarded as a failure, and if there is a failure of this kind the responsibility presumably lies with one or more of those concerned—the patient, the practitioner, and the surgeon. Clearly the patient often has himself to blame. He seldom knows, for instance, that the appendicular pain is usually referred to the *centre* of the abdomen above the umbilicus; if he did, he would go to his doctor in this, the stage of obstruction of the appendix. But instead the disease proceeds unobserved to involvement of the visceral peritoneum, made manifest by pain in the right iliac fossa. Then the patient himself—unless unlucky enough to be a child—will probably suspect the possibility of appendicitis, and seek medical advice. But already much damage may have been done. Self-medication is becoming increasingly common, and for general abdominal pain the parent, the chemist, the school matron, or the nurse still recommend "a good dose of castor oil." The danger of this dose must be more widely appreciated. Lord Moynihan is reported to have said that he never saw a ruptured appendix in which purgation was not only an impressive antecedent but a definite cause. We must somehow teach, until it is general knowledge, that the treatment of abdominal pain is to put the patient to bed and send for a doctor. Only the doctor can decide when, if at all, a purgative is needed and can be safely given.

When the practitioner diagnoses appendicitis, what is he to do? If there is an area of localized rigidity in the right iliac fossa the appendix is probably turgid, obstructed, inflamed, and on the point of perforation. The case is an emergency; there is one line of treatment only; no time may be lost before the appendix is removed. The choice of nursing home or hospital, the giving of enemata, the examination of the blood—these must not delay getting the patient to the theatere, for no stage in the disease is as urgent as this. If peritonitis or an abscess is already present when the case is first seen, preparation for operation should proceed, for the decision to delay operation should rest with the surgeon, and expectancy is only permissible under his immediate supervision with the theatre ready at hand. Even if the practitioner thinks that delay offers the best chance he will be well advised to call a surgeon as soon as possible, for only by repeated examination can the latter determine whether peritonitis is subsiding or extending. His decision may be far from easy, for even "simple" cases may require the best of surgical judgment and technique. It is now generally agreed that a limited approach is undesirable where there is doubt of the diagnosis, but in the presence of peritonitis there is much to be said for a lateral incision, since it causes less disturbance of limiting adhesions, and therefore less soiling of the general peritoneal cavity. The fixity of the appendix adds to the difficulty of its removal; a minimum of manipulation of the inflamed ileum is desirable; and on this account the lateral oblique incision of Morison is preferred by many, and allows of convenient drainage of the appendix bed and usually of the pelvis. The essentials of the after-treatment are well understood and generally practised—namely, rest and the maintenance of the fluid supply by the rectum. Purgatives must be avoided until the toxæmia and ileus are passed and the enthusiasm of the efficient sister, to whom the giving of aperients is often deputed, must accordingly be curbed. Intestinal paralysis, with its silent distension and slow poison after the early use of purgatives is only too ready to return.—*Lancet*, Nov. 22, 1930.

The Relationship of Herpes Zoster and Varicella

A. Netter and A. Ubain have for the last ten years been examining, by means of the employment fixation test, the serum of patients suffering from herpes zoster, using as an antigen the vesicular fluid, or, better still, a suspension of the vesicular crusts. In the first 100 cases examined the serum was found to contain antibodies in 93 per cent. Over 150 cases have now been examined, apparently with similar results. More than half of the cases have been of the secondary type, occuring in the course of various local and general diseases, and intoxications such as arsenical or bismuth poisoning. No fewer than 28 of the patients with secondary zona were tuberculous. From the serological point of view there seems to be no difference between the primary and the

HYCLORITE

HYCLORITE SOLUTION SODIUM HYPOCHLORITE

Accepted by the Council on Pharmacy and Chemistry of the American Medical Association (N.N.R.)

ANTISEPTIC

For irrigating, swabbing and dressing infected cases wherever an antiseptic is needed.

For Hand and Skin Sterilization.

To Make a Dakin's Solution of Correct Hypochlorite Strength and Alkalinity.

NON-POISONOUS
NON-IRRITATING

Write for Literature

BETHLEHEM LABORATORIES
INCORPORATED
300 Century Building,
PITTSBURGH, PENNA.

Over 60 years of Clinical Experience
Has Convinced Physicians
that

Poland Water

is a Bland Diuretic and an aid to Digestion.

Literature Free on Request.

Poland Spring Company
DEPT N
680 Fifth Avenue New York

secondary type; both lead to the development of specific antibodies reacting with the same antigen. With regard to the relation between herpes zoster anl varicella, the authors have now collected over 230 observations on the development of one of these diseases after exposure to the other. The complement-fixation reaction has shown that the serum of patients with chickenpox reacts to an antigen of zona crusts exactly as it does to an antigen of varicella crusts; conversely, the serum of a zona patient equally well with an antigen of zona and of varicella crusts. This holds true not only for the serum of patients with primary herpes zoster, but also for those with zoster coming on after encephalitis, vaccination, arsenical poisoning, and so on. The authors therefore conclude that the virus of varicella and of zoster are antigenically alike. The varicella virus appears to be more infective, and to leave behind it more solid immunity than the zona virus; these differences, however, are no greater than those between variola virus and vaccina virus, which are known to be antigenically the same.—*Ann. de l'Inst. Pasteur,* Jan., 1931, 46: 17.

Calcium in Pregnancy—Amounts Required

There appears to be little doubt that some fundamental disturbance of calcium metabolism occurs during pregnancy. It is attributed to the gradual, and in later months, rapid increase in the disposition of lime salts in the foetal skeleton. According to Hoffstroem, the calcium demands of the developing foetus mount from approximately 5.5 grams at 28 weeks to 30.5 grams at birth. In fact, progressive decalcification has been observed in experimental animals during pregnancy. That this calcium drain on human mothers occasionally reaches dangerous limits is evidenced by the association of osteomalacia and tetany—calcium deficiency diseases—with pregnancy.

Accordingly, the practice today in pregnancy is to advise a diet which will supply lime enough for the proper growth of the infant and for the replacement of the mother's own calcium reserves. When the addition of a calcium tonic is deemed advisable, many physicians are employing Hagee's Original Cordial Compound. This preparation, it is explained, contains glycero phosphate of calcium, which is regarded as the most available form for this salt. Stewart and Percival of Edinburgh in 1928 have found calcium readily assimilable when in an ionized state in the presence of phosphorus.

Other ingredients of Hagee's Original Cordial Compound are glycerophosphate of sodium, extract of cod liver oil, salicylic acid and aromatics—alcohol 8 per cent.

The Lot of the General Practitioner

Physicians have been slow to realize that their practice is gradually being crushed to nothingness between two millstones: the one, state medicine, the other endowed institutions such as medical out-patient clinics. By State Medicine I do not mean such a complete system of civil service as is advocated by Dr. Haigh, but rather the gradual (and even more rapid) extension into the field of medical practice of the State Department of Public Health ("and Disease?"). Cancer clinics, tuberculosis clinics, rheumatism clinics—next in line will be heart clinics, diabetes clinics, anæmia clinics, thyroid clinics, etc., etc. These clinics are being put through so cleverly by the Commissioner of Health, always in response to an alleged "public demand," that they are upon us before we know they are started. How many physicians were present at the recent hearing of the Commissioner of Public Health on the institution of rheumatism clinics by the state? Exactly none.

The endowed institutions, sponsored and supported by millionaires with much surplus money, are also increasing by leaps and bounds and thus represent the other millstone which is gradually crushing the much maligned practitioner. The large number of millionaires is resulting in the formation of one institution after another. These may compete with one another for patients, and in the eagerness for numbers, patients are being admitted not only from the poor startum of society but from the middle class.

The practitioner should become mindful of these millstones. The medical firing line should be against the present extension program of the State Department of Public Health. If rheumatism clinics are not stopped now, we will have more and more clinics of various types. Again, if we are not mindful of dispensary abuse, it will increase so that the only practice will be among the rich, and a relatively few doctors can take care of that.

The writer urges that groups of physicians throughout the State organize themselves for the purpose of combating these evils. If this is done, possibly the Massachusetts Medical Society will awaken to what is going on and will strive to cooperate and mediate between the State and the practitioners.—William Dameshek, M.D., in the *New Eng. J. of Med.,* 1931, 204: 403.

Teeth Extraction in Old Age

Beware of the after effects if there is existing disease of the endocardium or myocardium.

Perhaps there is something you need listed in the Classified!

FREE— Generous Sample of MU-COL

(Makes 6 Quarts of Solution)

"Would be at a total loss for an antiseptic were this product taken off the market," says N. Y. doctor. Thousands of physicians say Mu-col is most useful antiseptic wash they ever used. A saline-alkaline powder easily soluble in water. Use it in dermatoses, scalds, fetid breath, sore throat, etc. Superior for feminine hygiene. Assures absolute cleanliness.

A Cooling, Healing, Post-Operative WASH that Gives Highly Effective Results

MAIL COUPON FOR SAMPLE NOW

MU-COL CO.,
Suite 1421-Y, Buffalo, N. Y.

Send sample of Mu-col, enough for 6 qts., FREE.

Name .....M. D.

Address .....

(Please attach coupon to your letterhead)

Clinically Approved Contraceptive Method

Free on request, an authorized Reprint from the works of James F. Cooper, M.D., which present briefly the technique of the clinically approved method of contraception, is offered exclusively to physicians by Blair & Curtis, Inc., 100 Fifth Avenue, New York City.

They announce also that their original Transparent Ramses Diaphragm Pessaries are available in new and improved types, each in nine different sizes to enable the physician to fit patients accurately. Their transparency is attractive to physicians and patients alike, and maximum durability is assured by the cadmium plating of the flexible coil-spring in the soft, rubber-covered rim. ALL RAMSES diaphragms are guaranteed free from "pin-holes" and other defects often found in thin rubber products.

Data regarding the well-known vaginal jellies, Gelakta and Gelaquin (used with Ramses Diaphragms, and widely used alone with sanitary glass nozzle applicator), will also be sent to physicians on request. An introductory offer to physicians is made of a Physicians Office Fitting Set, which includes 4 Ramses Diaphragms and one tube each of Gelakta and Gelaquin.

The Pathogenesis of Pink Disease

In spite of the interest which pink disease has attracted since the publication of Swift in 1914, and of Feer in the early post-war years, the real nature of this disorder remains undecided. Though much work has been done on the morbid anatomy, the findings of different observers have varied so much that no single lesion has been established as essential. The morbid changes in peripheral nerves and anterior horn cells found in some cases have been absent in others, and their underlying cause is still obscure. Hypotheses to account for the condition have been based on clinical analogies rather than positive evidence. Of these hypotheses, one which was in some favor a few years ago, especially in America, arose from the resemblance borne by pink disease to pellagra, from which it was inferred that it was a manifestation of avitaminosis. Latterly this view has somewhat lost ground, because of the number of cases reported in which vitamin deficiency could be excluded. There remain as alternatives those old favorites, the alimentary toxæmia, absorption from septic foci, and systemic infection, and for none of these has the case yet been proved.

The view that pink disease is infective is strongly supported by M. Péhu and A. Mestrallet.[1] They have previously sought to establish its nosological identity with the epidemic "acrodynia" of 1828 and they now bring forward further arguments in favor of its being a specific infection of the nervous system closely analogous to encephalitis. The cases, they say, show signs of grouping into certain localities, and some of the psychic disturbances, notably the intractable insomnia, bear out the analogy. From the standpoint of morbid histology further arguments are adduced. They give a full summary of two published necropsies (Francioni and Vigi, Kernohan and Kennedy) and compare them with the findings of Paterson and Greenfield, Byfield, and others. In the first case the most significant observations were degenerative changes in the cells of certain mesencephalic ganglia; Francioni and Vigi also found cellular infiltration in the region of the cervical sympathetic ganglia, of the nature of perivascular cuffing. The changes found by Kernohan and Kennedy were more diffuse; there were signs of degeneration and demylelination (but not inflammation) in some peripheral nerves, especially the sciatic, and some chromatolysis in the posterior root ganglia; chromatolysis was seen to the greatest extent in the cells of the mesencephalic ganglia. A point on which all the observers quoted are in agreement is that the cells of the hemispheres and cerebellum are unaffected, though Warthin found a condition of meningeal œdemia.

Péhu and Mestrallet think the evidence they have collected justifies the classification of acrodynia as an infective disease closely allied to encephalitis, probably caused by a neurotropic virus which produces diffuse lesions but shows a predilection for the mesencephalic centres of the autonomic system.—*Lancet*, May 2, 1931.

VIBURNO

(BEACH)

MAY BE RELIED UPON AS A DEPENDABLE

MENSTRUAL CORRECTIVE

Clinical Experience has demonstrated that in all functional abnormalities of menstruation, reliance may be placed on the REMEDIAL effects of VIBURNO (Beach).

Exerting a selective action on the utero-ovarian circulation, VIBURNO (Beach) relieves congestion, equalizes circulation, and thus overcomes the subjective symptoms of pain and nervousness. Since VIBURNO (Beach) tends to re-establish functional normalcy and is a uterine tonic rather than a mere palliative, results obtained are frequently permanent.

It is particularly valuable in the nervous manifestations of the Menopause and in

DYSMENORRHEA
AMENORRHEA
MENORRHAGIA

LIBERAL SAMPLES SENT ON REQUEST

THE

VIBURNO
COMPANY

116 MAIDEN LANE NEW YORK CITY

THE BROOKLYN DIAGNOSTIC INSTITUTE

makes available

Complete diagnosis, including every chemical, laboratory and special study of cases.

Every laboratory service comprising chemical analyses, electro-cardiography, basal-metabolism, x-ray work, pregnancy tests, etc.

Prompt service; Low rates; Accurate work.

867 St. Marks Ave., Brooklyn, N. Y.

DR. J. GUTMAN, *Director* *LAfayette* 3-8200

Rocky Mountain Fever

Spencer and Parker have prepared a vaccine from tick emulsions which has proved effective as a prophylactic against this disease in human beings.

Health Certificates for Food Handlers

All persons handling food in any way should present a health certificate.

Paralysis of the Vocal Cord

An infrequent complication of non-malignant disease of the thyroid gland.—Davies, *Archives of Otolaryngology*, March, 1931.